

# Manufacturers RECORD

## An Exponent of Americanism

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### *"O God, Hear the Cry of American Motherhood"*

Wildwood, N. J., October 23, 1918.

Mr. Edmonds—I am not writing to you, I am speaking to you, and to men who will hear my message through the thunderbolts of your pen.

Since my last letter the war has assumed even greater proportions in my life, for now all of my four sons are under orders; my youngest son has answered the call of his country. The hour is heavy with destiny, heavier than when General Haig called out to the world, "We are fighting with our backs to the wall."

Germany has sent to us another note so full of hypocrisy and transparent deceit that it seems as if no citizen of America with the interests of civilization at heart could give it even a passing thought. And yet there are many who are anxious and wait with dread the outcome.

With four sons in the service I believe the power is given me to interpret the hearts of women. Do men know what we are suffering? There is a knife thrust in the heart of every mother in America today, and yet have you heard one word from any one mother that to assuage her grief she would ask for an armistice or a peace which would leave Germany unrepentant? God forbid! Our crusader sons would shame to own our motherhood were we to fall so low!

I am down here by the sea. Every day I go to the market with my basket. It is a novel experience, for it brings me in contact with all classes of women. This morning I waited my turn, for a little old lady had precedence. She was pitifully poor; her hair had blown wildly about her face. She was wrinkled and her eyes were dull and her hands were trembling. She was one the crowd would pass and never see. She talked to the marketman. I overheard, "I got a letter today, Mike, and two postal-cards from Jimmie. Ah, that boy! He is a fighter, Mike. He says he is a-runnin' them. And he is in the front. But, Mike, I've been readin' in the paper that they're talkin' of peace—" Then all the age seemed to fly from her eyes. A flush ran to the roots of her hair, the little trembling hands clenched. It was the last flame of her life that sprang into fire that moment. She took Mike's arm, and I saw that she shook with a deep emotion—"Oh, Mike, you don't think they will be stoppin' Jimmie before he gets to Berlin?"

I left the shop and all plans for my noonday meal, and went with a rushing spirit down to the lonely beach where I could talk undisturbed with my Great Companion.

A vast immensity was about me. A terrible expanse of sea and boundless sky. I turned in every direction, and it seemed to me that from every zone I could hear those unexpressed cries of dauntless women—those who are old and lonely and poor, who have no one to speak for them, yet in whose souls there burns the divine fire of courage which has always been given to women to possess. I felt the spirit of their sacrifice, and I knew it was a sacrifice which would endure to the end of time. I gathered together all of their silent tears, all of their mute prayers for victory, all of their heroism, all of their silences, which are greater than the deeds of the mighty, and I put them into a golden chalice.

There by the lonely sea, in the immensity, in the glory of a new day, I lifted my arms to Heaven, and I cried aloud and my voice was heard above the roar of waves, for those others were with me, those who watch and wait and pray for victory, those gathered with me, a vast company of the unexpressed motherhood.

"Oh, God!" I cried, "don't let them stop Jimmie till he gets to Berlin!"

To RICHARD H. EDMONDS, Esq.,

Editor Manufacturers Record

IDA M. H. STARR.

(Mrs. William J. Starr.)

# BETHLEHEM STEEL COMPANY

## IRON AND STEEL PRODUCTS

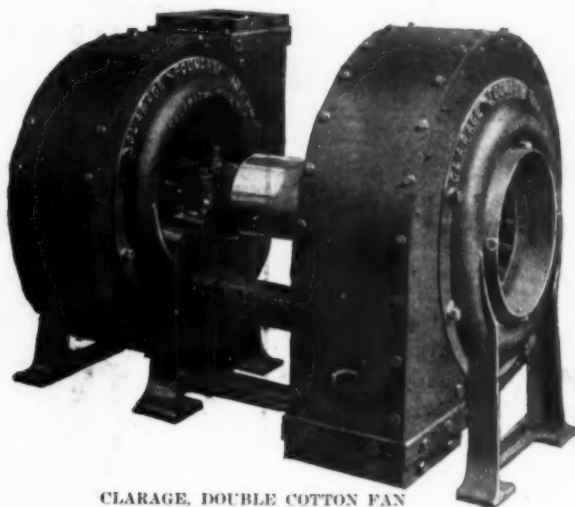
GENERAL OFFICES:

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CLARAGE, DOUBLE COTTON FAN

## CLARAGE KALAMAZOO

# Cotton Exhausters

Clarage Cotton Fans are built to give *Superior Service* with the *Least Possible Attention*.

Clarage "High Efficiency" Multi-blade Wheel was especially designed for Elevator and Seed-Blowing Fans. Owing to the peculiar curve and shape of the blades of this wheel, it will develop the pressures necessary when using considerably *less power* and running at a *lower speed*.

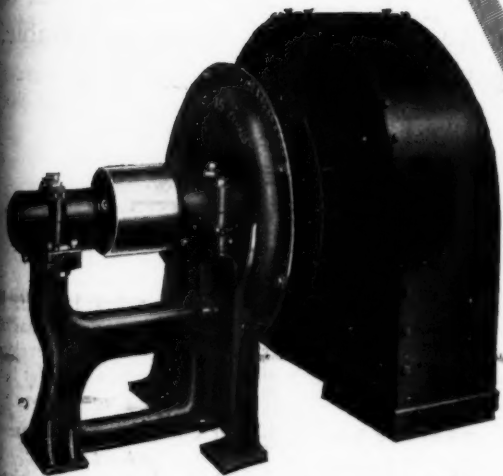
These Exhausters are furnished with Special Bearings—entirely enclosed, dust-proof and oil-tight—such bearings reduce the fire risk.

Every fan is given a running test after assembly for shipment. This insures that *Clarage Fans are Right* when they reach you.

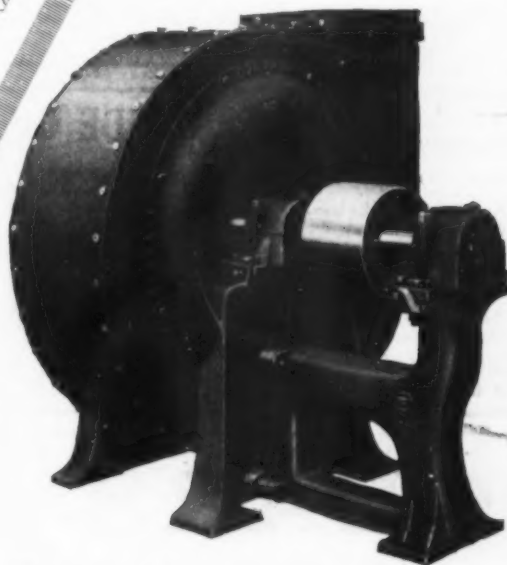
Your gin manufacturer will supply you with Clarage Cotton Fans if you insist.

**CLARAGE FAN  
COMPANY**

KALAMAZOO,  
MICH.



Clarage, Single Cotton Exhauster, showing wheel partly removed from casing. This is very easily done, merely the removal of eight tap bolts along side plate. It is not necessary to disturb either inlet or outlet connection.

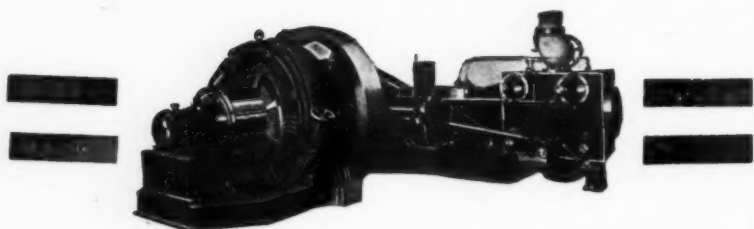


Clarage, Single Cotton Fan, equipped with Ball Bearings, SKF Balls and Races—especially designed Clarage Bearing Cases.

# CLARAGE FAN COMPANY.

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## BALL CORLISS ENGINE

WITH NON-RELEASING GEAR

**T**HE essential feature in a power unit is *Reliable Operation*. It's a fact that you can't get away from. The wheels must go 'round in order to keep up production. In many plants the actual cost of power is a small item in the cost of the product, but an interruption to service is a costly item.

Ball engines are built to meet the needs of particular buyers, men who appreciate that it takes good design, good workmanship, and good materials to meet the demands of modern power plant practice.

Surround your plant with an atmosphere of security by installing a Ball Engine

It's a paying investment

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Steel Casing Settings, Heaters, Stacks, Tanks, Stills  
**THE HOUSTON, STANWOOD & GAMBLE Co.**  
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### 50 H. P. SELF STARTING CRUDE OIL ENGINES

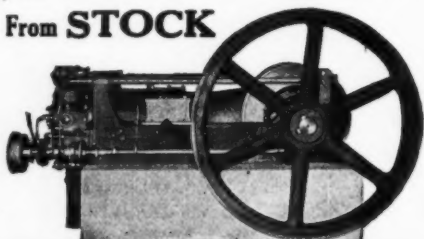
Starts on its own fuel—no storing of compressed air.  
 No hot bulb—no standby losses.  
 Save fuel—Save wages.

**BOEC**  
 OIL ENGINES

Burn any liquid fuel.  
 Designed for American conditions.

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 BALTIMORE, MD.

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Made of Cast Iron, Cast Steel,  
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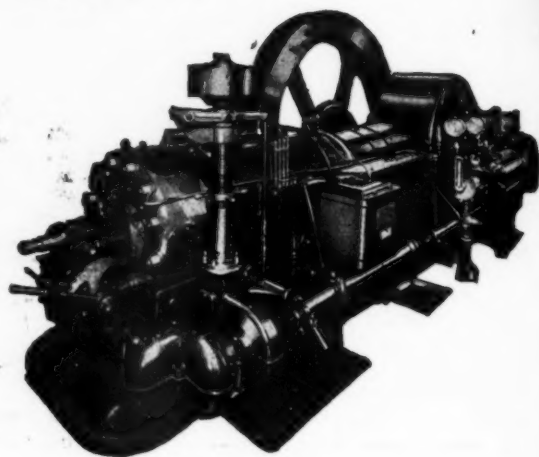
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60 to 1,000 H. P.



## Coal may be scarce, but Oil is not—

Warnings about next winter's coal supply are already appearing.

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"No Coal" Offers two alternatives—

- 1—Shut down.
- 2—Employ some other source of power.

Shutting down is unthinkable when top speed production is so vital to our very national life. It logically follows that power users must turn to a dependable substitute. The Snow Oil Engine is a unit, which even in normal times, and above all in times of coal famine, has proved itself a reliable, money saving alternative.

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 OIL  
 ENGINE

The Snow Oil Engine is a Complete power plant in itself. It cuts out the upkeep of boilers, stokers, superheaters, etc. It has no auxiliaries to be kept alive during standby periods. It develops great power on low fuel consumption and what you spend for fuel is actually converted into power.

The Snow Oil Engine is suitable for every power purpose—driving generators, pumps, air compressors, line shafting, etc. It operates on the lowest grades of cheap crude oil; starts instantly and picks up full load in 11 seconds. High compression type, requiring no ignition apparatus. No explosive shocks—no vibration.

Send for Bulletin S-130-29 and get full details about the Snow Oil Engine

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# STIMPSON-RIVETS



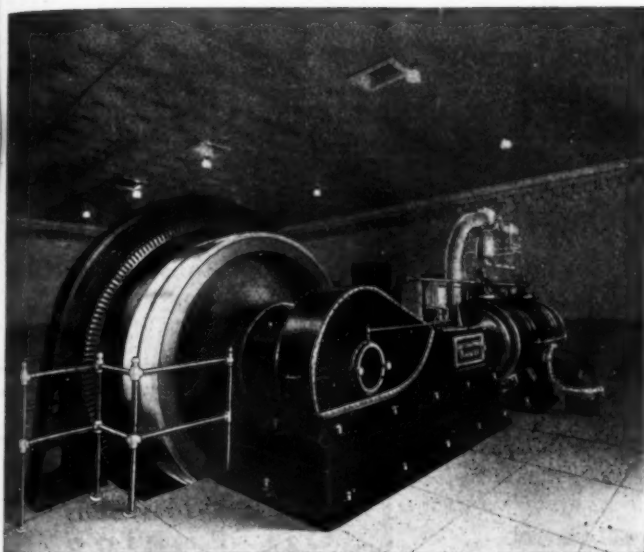
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## The Ames Una-Flow Engine



500 H. P. AMES UNA-FLOW ENGINE INSTALLATION

The superiority of the Ames Una-Flow is because of Ames design and workmanship built in the engine. Repeat orders from satisfied customers justify our claims and guarantees. Condensing and non-condensing in sizes 50 to 1000 H. P.

**AMES IRON WORKS**  
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## CLARK BROS. CO.

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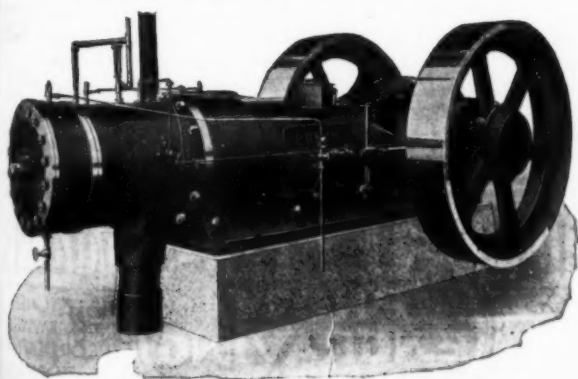
**Triple and Compound Marine Engines**  
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**Sawmill Machinery both Portable**  
**or Stationary Band or Circular**

**We invite your Inquiries**  
**and Specifications**

*Established 1880*

## PRIMM HEAVY OIL ENGINES



Looks like  
Operates as smoothly as  
Starts as easily as  
As dependable as } **A STEAM ENGINE**

But burns Crude Oil or any of its cheaper by-products, thereby greatly reducing your power costs, no matter what kind of prime mover you are now using.

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ENGINE—GENERATOR—EXCITER  
SWITCHBOARD—TRANSFORMER

All Our Own Manufacture

Undivided Responsibility to Purchaser

UNEQUALED IN

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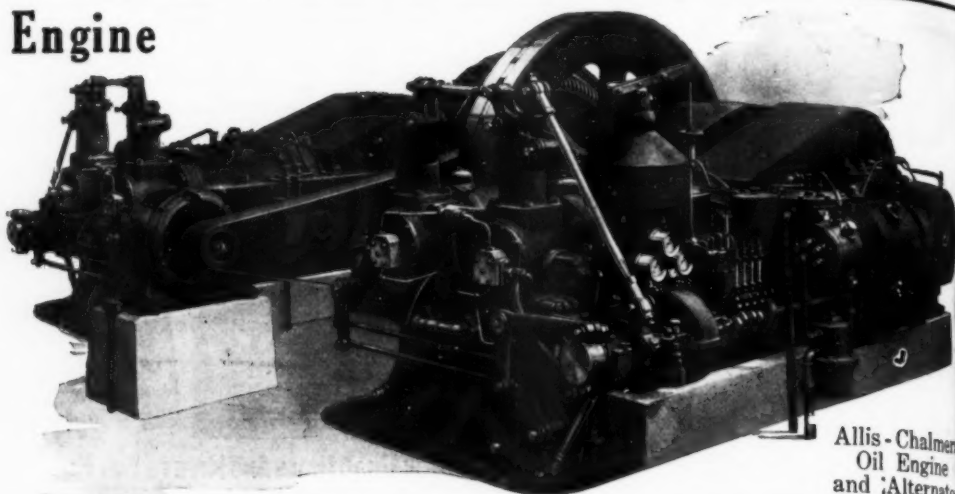
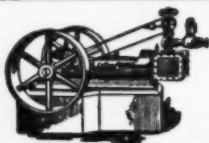
Write our nearest Branch Office

For Bulletin No. 1532-A

Allis-Chalmers Manufacturing  
Company

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Oil Engine  
and Alternator

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FACTORY to YOU

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**Long Wear—Less Steam**

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NATIONAL LAMP WORKS OF GENERAL ELECTRIC CO.

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An inexpensive "little 'Drop Out' Renewal Link restores a

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Order by brand from your electrical jobber or dealer.

Write for Catalog 93.

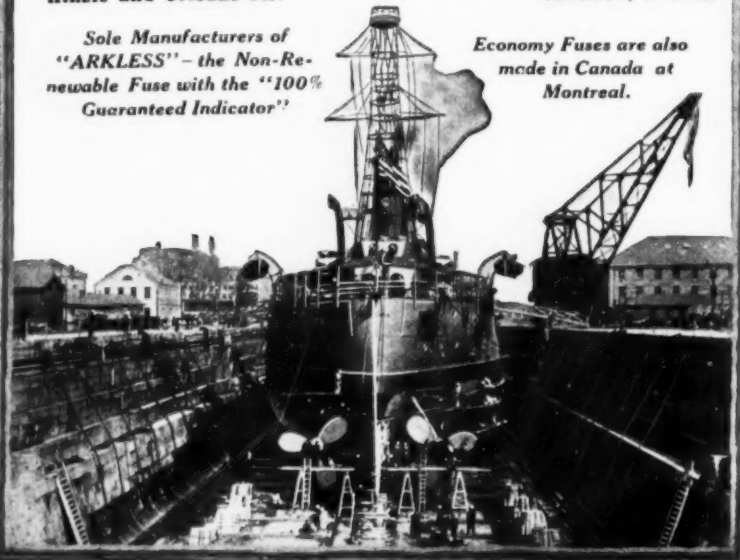
## Economy Fuse & Mfg. Co.

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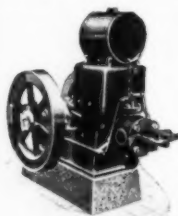
CHICAGO, U. S. A.

Sole Manufacturers of  
"ARKLESS"—the Non-Renewable Fuse with the "100% Guaranteed Indicator"

Economy Fuses are also made in Canada at Montreal.



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## The St. Marys SUPER-DIESEL Oil Engine

It is cheap because it operates on kerosene, solar oil, fuel oil or cheap distillate.

It is dependable because it uses no magneto, battery, coils, spark plug, etc.

99% of customary engine troubles are eliminated.

Turning on the oil and turning the engine over, starts it at once, irrespective of weather conditions.

From 4 to 60 H. P.

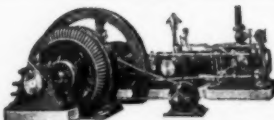
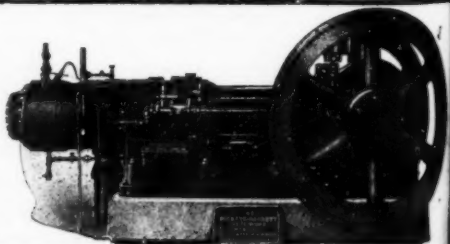
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Simple and Strong, with 30 Years' Experience Behind It.

THE ST. MARYS OIL ENGINE CO., ST. CHARLES, MO.

## Buckeye Barrett CRUDE OIL ENGINES

SEMI DIESEL

For all power purposes  
75 to 180 H. P.The Buckeye Machine Co.  
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Boilers of All Styles and Sizes

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## Leaflet 2032

Leaflet 2032 is devoted entirely to fuel saving suggestions.

It is not a lengthy discussion.

It is theory boiled down to the very essence of practicability—short, concise, workable, understandable.

Applies to both hand-fired and stoker-fired plants.

As long as the supply lasts the leaflet will be mailed to any one in charge of, or actually engaged in, boiler-house work.

(We desire, however, that the supply go only to those in a position to make practical use of the information).

**WESTINGHOUSE ELECTRIC  
& MFG. CO.**

East Pittsburgh, - Pennsylvania



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MANUFACTURED  
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By Large Central  
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## "Exide" BATTERIES

are doing their part in helping to speed up the efficiency and bring about greater production in every industry where the application of storage battery power is a factor.

And wherever the storage battery can be used, we have a special type of battery best suited to the particular need—a battery that has thirty years of storage battery building experience built into it—a battery that is a "Giant" for work, dependability and durability.

### THE ELECTRIC STORAGE BATTERY CO.

The oldest and largest manufacturer of Storage Batteries in America

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The extensive use of electrical power in the modern factory emphasizes the importance of an efficient armored conductor.

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REALFLEX answers to these specifications. In our large works we have used it for years and thus tested it under all conditions, finding it easy to install, durable and efficient.

For installations where dampness, acid fumes or similar conditions are to be met, Lead-covered REALFLEX is recommended.

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**UNION TRACTION COMPANY  
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A recognized necessity in modern buildings  
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Feeder Cable Bare and Insulated  
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FOR  
EXCEPTIONALLY LONG SPANS

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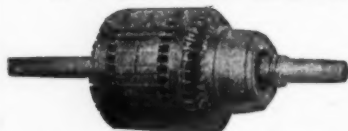
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GENERATORS—ARMATURES—TRANSFORMERS



Burned Out Motors and Generators Rewound. High Grade Armature Rewinding. Prompt Service. Workmanship Guaranteed.

**CHARLOTTE ELECTRIC REPAIR CO.** Charlotte, N. C.  
The Best Equipped Electrical Repair Works in the South

**DOMINION**  
PISTON ROD  
PLUNGER—VALVE ROD

CROSS EXPANSION  
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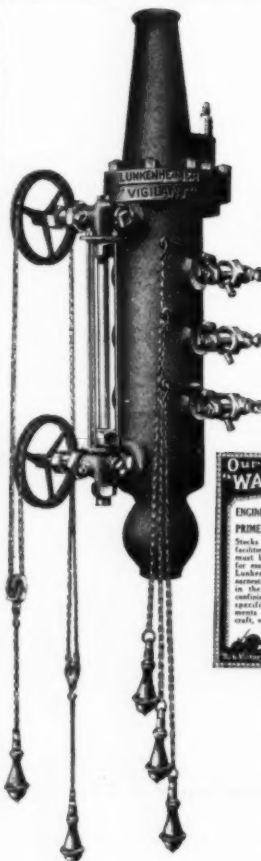
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**DOMINION ASBESTOS AND RUBBER CORPORATION**

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safeguards the boiler against the dangers incident to high or low water levels, automatically sounding an alarm when the water level approaches either danger limit.

In addition to safeguarding the boiler, it also assists in maintaining a uniform water level which contributes materially to economy in the use of fuel.

The practical design, embodying but few, substantially constructed parts, accounts for the continuous satisfactory service which the "Vigilant" gives, and all parts being easily re-

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Users will profit by their installation. The repair or replacement of a part, when occasion requires, not only saves time and money, but also aids in the conservation of boiler equipment.

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Largest Manufacturers of  
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"SOLID COPPER"

No. 6 B. & S. Solid Copper

Strength obtained by using four times as much copper as needed for conductivity. Copper is expensive.



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REG. U.S. PAT. OFF.

Drawn from the product of  
Copper Clad Steel Co., Pittsburgh

No. 8 B. & S. Aristos "Copperweld"

Copper for conductivity. Strength from steel.  
Steel is at least three times as strong as copper.

## These Wires Have Equal Strength

### Which Should You Use?

The "Copperweld" Copper Clad Steel Wire for the needed conductivity

- weighs 42% less than copper
- has 44% higher elastic limit
- has 21% smaller diameter and therefore 21% less projected surface exposed to wind pressure and capable of carrying sleet load

—and you get over two miles of "Copperweld" for the price of one mile of copper wire.

"Copperweld" is not a cure-all, but where some of the conductivity of solid copper wire can be sacrificed for greater tensile strength or where exposed steel conductors would corrode, "Copperweld" will make big savings.

Our new book, "Aristos 'Copperweld' Copper Clad Wire," explains in detail. Send for and read your copy.

## PAGE STEEL & WIRE CO.

Established 1883 as Page Woven Wire Fence Co.

Makers of "Copperweld" Copper Clad Steel Wire; ARMCOWelding Rods and Electrical Wire; Wire Mill Products, Plain and Galvanized; Wire of Special Analysis; Wire Fencing for all Purposes; Factory Gates; Ornamental Iron Fence; Machine Guards; Tool and Stockroom Partitions; Architectural Iron.

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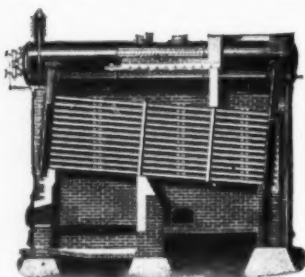
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Pressures 160 to 300 Lbs.  
Units 100 to 1,000 H. P.

All steel construction. Drop forged, everlasting H H plates. Baffling, vertical, horizontal or combination. Supported free of brick work. Can be arranged for superheater or any type stoker without radical change in design.



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Stand Pipe, Self-Supporting Stacks, Tanks, Towers, all kinds of Structural and Plate Iron Work, Boiler Fronts, Grate Bars, all kinds of Castings.

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## BOILERS

## TANKS



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STEEL BARGES

GRATE BARS  
FIRE FRONTS  
STEEL BOILER SETTINGS

## LOMBARD IRON WORKS & SUPPLY CO. AUGUSTA, GA.

Machinery - Supplies - Repairs - Castings

## Union Water Tube Boilers

Ask for our new catalogue, which describes in detail the many advantages of these boilers.

We will gladly send this catalogue on request.

We also make a complete line of  
Fire Tube Boilers.

UNION IRON WORKS, ERIE, PA.

## THE EDNA BRASS MFG. CO.

MANUFACTURERS OF

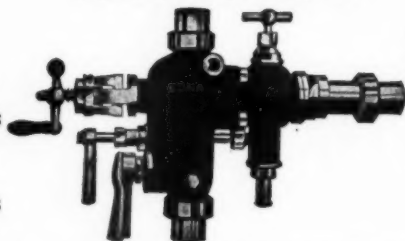
Injectors

Lubricators

Water Gages

Gage Cocks

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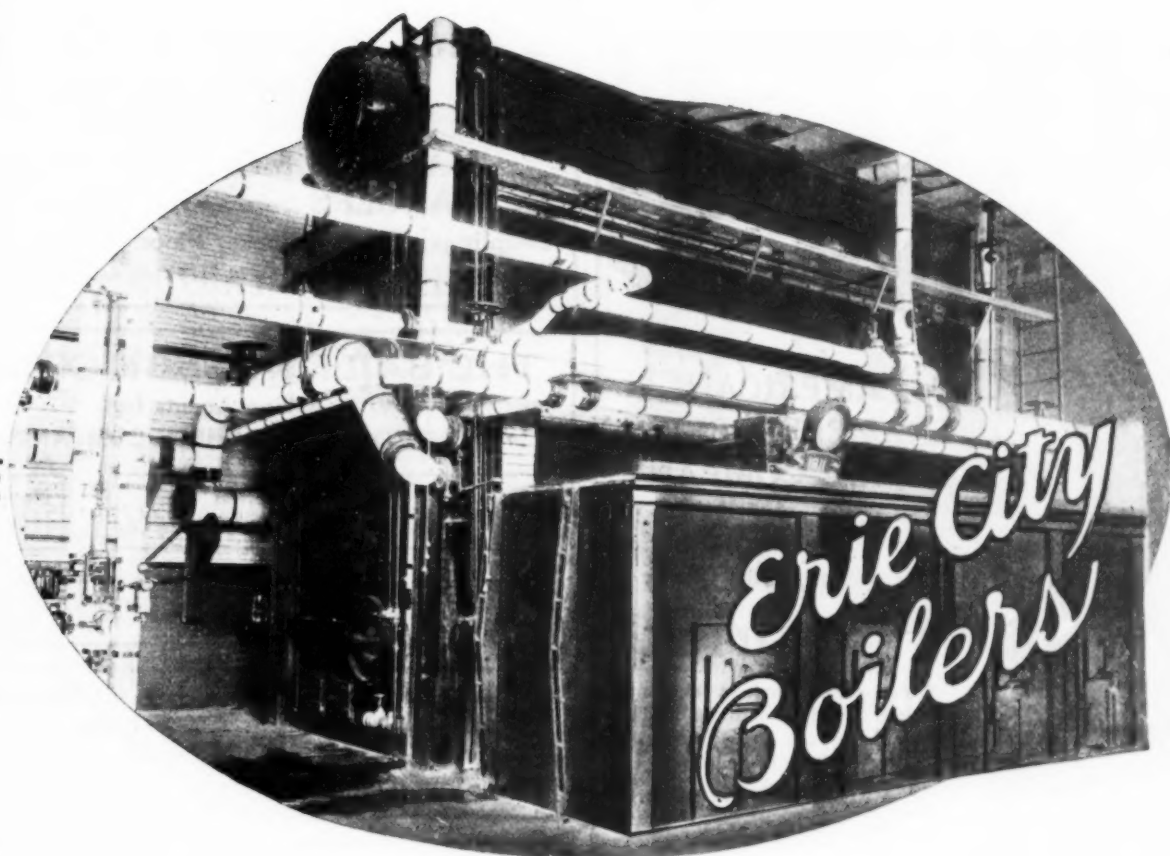
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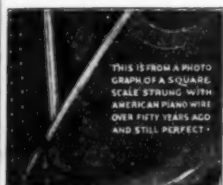
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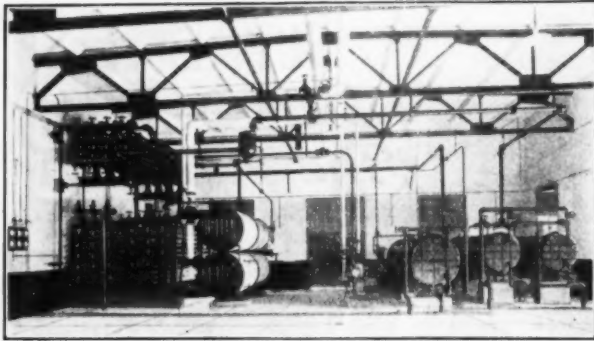


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which will be gladly sent you if  
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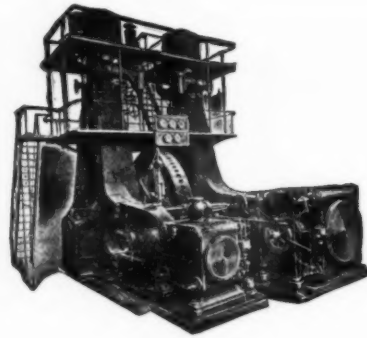
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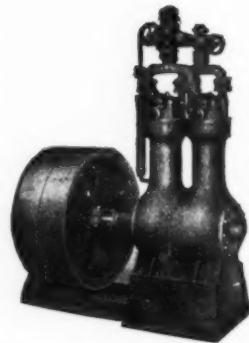
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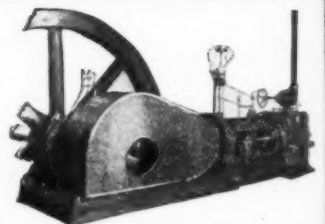
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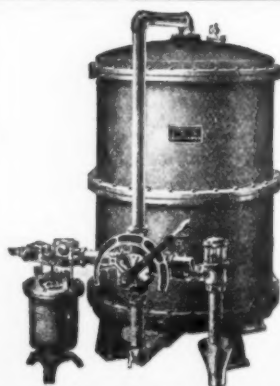
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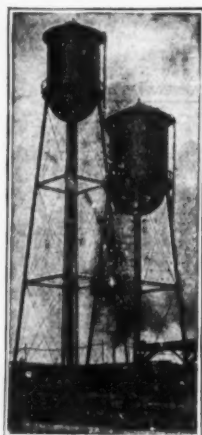


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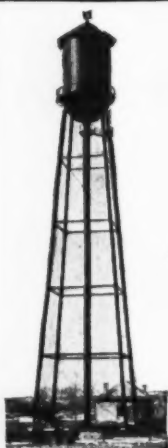
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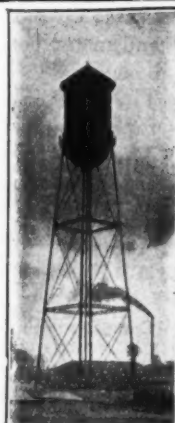
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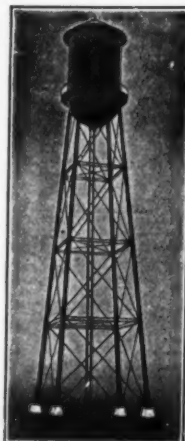
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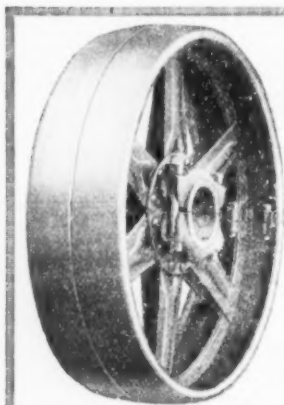
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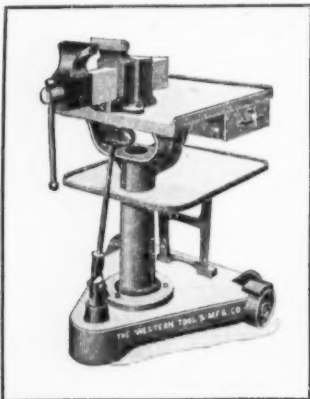
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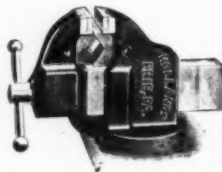
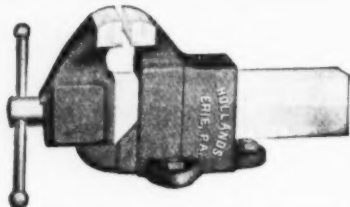


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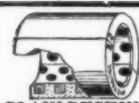
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For Heavy Loads  
For Hard Service  
For Durability  
BUSHINGS FOR  
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PLAIN BUSHING Made in Halves  
THE METALINE COMPANY  
Corporate name changed from North American Metaline Co.  
West Ave., Cor. 3rd St., Long Island City, N. Y.



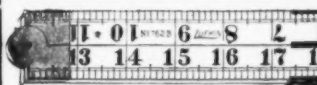
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A Chain Hoist that is superior in service to any other. Has patented LOOP Hand Chain GUIDE, steel working parts and a reputation for speed.

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FORD CHAIN BLOCK & MANUFACTURING CO.  
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To get in touch with some Extra Contract Work  
ADVERTISE IN THE  
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## LUFKIN TAPES STEEL RULES WOOD RULES

Styles suited to every kind of work. Each the best of its kind.

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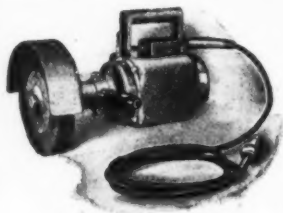
THE LUFKIN RULE CO.

SAGINAW  
MICH.

New York  
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Windsor, Can.



## Little Giant Electric Grinders



Can be operated on direct or alternating current. Thousands now used in foundry, machine and structural shops. Built in all sizes and styles. There is a Little Giant Electric Grinder for every need.

We also manufacture Little Giant compressed air grinders and Little Giant Electric tools and hoists.

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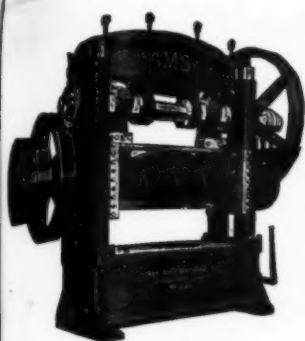
1059 Fisher Bldg.  
CHICAGO

Branches  
Everywhere

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October 31, 1918.]



Press No. 1026

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Large or Small  
Regular or Special

The last word in Presses is

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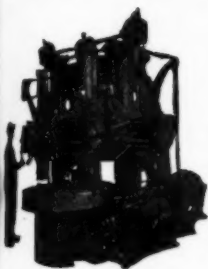
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It's your security.

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Bridgeport, Conn.

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We build a most comprehensive line of machine tools for every imaginable purpose, also Steam Hammers and Niles Electric Traveling Cranes.

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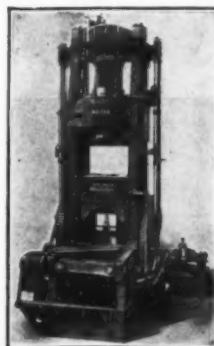
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111 Broadway, NEW YORK

Birmingham, Ala., Office—2015 First Ave.

Philadelphia Office—405 North 21st St.

## Sheet Metal Working Machinery



The illustration shows Bliss Bottom Slide Drawing Press No. 764, one of the largest presses we build, weight 620,000 lbs. It will draw in depth and lift out up 42 inches. It will take a drawing punch 42 inches in diameter. It draws blanks up to 64 inches in diameter of 3/16 inch soft steel.

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Twelve Medals Awarded at  
International Expositions.

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Our goods are on sale in every leading hardware store in the United States and Canada. Copy of Catalogue will be sent free to any interested file user on application.

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## "Racine" High Speed Metal Cutting Machine Eats Steel—Standard the World Over

This is the only machine in the world that has an absolutely positive automatic lifting device. This feature of it is secured by patents. Its saw frame guide prevents springing. These two features combined lengthen the life of blades used on it.

Then there is the all-important fact that "RACINE" machines minimize wastage of material, cut accurately and speedily, are easy and cheap to operate and increase production.

Investigate the particulars of our offer before buying any other machine. Write for catalog MR22.

**Racine Tool & Machine Co.**

RACINE, WIS., U. S. A.



Standard the World Over

USE "RACINE" H-S TUNGSTON BLADES



# "Pioneer"

## STEEL HANGER

"I've handled all kinds of hangers since I started millwrighting; but these 'Pioneer' Steel Hangers are my choice. Why? The answer's easy. I can hang them all day and alone if necessary. These old-fashioned cast-iron hangers seemed to weigh a ton around three o'clock in the afternoon. It took three of us to handle them, too. It's different now; the boss uses 'Pioneer' altogether. They're safe; and I never yet heard of a 'Pioneer' coming down — and that's a mighty good point. The difference in first cost is in favor of the 'Pioneer,' so they are preferable every way you look at them."

*Ask for our booklet  
"Transmission Data."  
It's worth reading.*

**"I'll Take the  
Steel Hanger  
Every Time"**



**STANDARD PRESSED STEEL CO.**

PHILADELPHIA, U. S. A.





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**Malleable Iron and Steel Buckets**

Any size, style and shape, for all classes of elevator systems. Ask for details.



**"C" Class Link-Belt**

for handling abrasive, gritty and corrosive materials. So constructed that pins cannot rock or rotate in side bars. Means longer, better service. Runs on standard sprockets. One of many types. Particulars on request.



**Link-Belt Steel Screw Conveyors**

Built in various types and sizes for handling different classes of materials. Write for details. Tell us the nature of material you wish to convey.

**T**HE scope of Link-Belt labor saving equipment is so great that there is no line of industrial activity which cannot be made more efficient, more productive, and operated more economically, by the adoption of Link-Belt devices.

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We maintain a large staff of engineers at each of our plants, who will gladly render you advice and assistance in bringing your plant up to the highest possible degree of mechanical efficiency in the handling of your product, and transmission of power. Address nearest office.

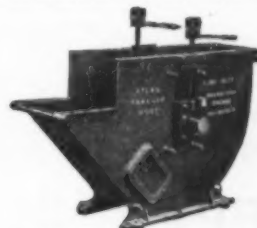
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**Belt Conveyor Idlers**

Furnished in many sizes and types, with or without stands, to handle light or heavy materials.



**Link-Belt Elevator Boots**

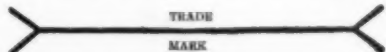
Made in various types to suit conditions.



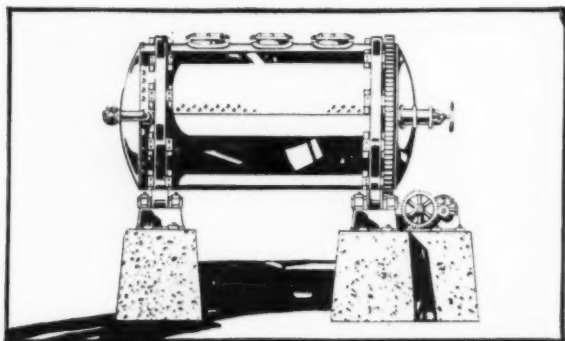
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A good, strong, reliable form of Link-Belt for light and medium service. Adapted to a wide variety of uses.

**THIS TRADE MARK APPEARS ON ALL LINK-BELT EQUIPMENT**



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## THE RIGHT KIND OF EXTRACTION EQUIPMENT

If you are using stationary percolators or stationary extractors for extracting oil or grease, you are not using the kind of equipment which produces the most profitable results.

Rotary Percolator-Extractors produce a greater yield of grease—are more rapid—use less steam—cause a smaller loss of solvent—and require no labor for loading or dumping.

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by the use of our No. 3 (Boronic-Copper Alloy), says one of the largest manufacturers of locomotives

This large concern buys our No. 3 (all metal, in shot form) in ton lots, and when asked what they use it for, they say "IN EVERYTHING." They discovered that they can increase the life of their babbitts 300 per cent. by the use of but three pounds of No. 3 to the hundred pounds of any grade of babbitt—entered in the simplest way.

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#### Foreign Distributors:

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## Economy Features of Rubber Belt Conveyers

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3. Speedy and Silent
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Are everywhere giving a satisfactory service

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The various types of Jeffrey Trippers for automatically distributing over a given space or discharging materials at any fixed point are so designed as to occupy minimum space above the belt; operate with minimum horse-power, and insure a minimum of care and upkeep.

The shorter lengths of Flat or Troughed Belts have scored notable successes in handling economically packages, boxes, barrels, etc., and in picking and sorting conveyer service.

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THE JEFFREY MFG. COMPANY  
926 North Fourth Street COLUMBUS, OHIO

*Handle it Mechanically*



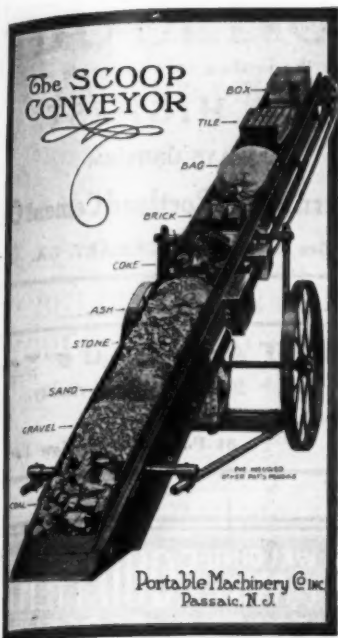
Note how right and compact the Jeffrey Self-Pulling Automatic Reversible Belt Tripper is built.

Handling Coal to Storage Bins in Power Plant.



A series of Light Portable Belt Conveyers handling Boxes from Warehouse to Dock. Can be driven in any section.





**WILL  
DO  
THE  
WORK  
OF  
FROM  
6  
TO  
12  
MEN**

Hundreds of manufacturers are now using the Scoop Conveyor to load and unload cars, trucks and wagons and to stack into storage piles or bins.

Ask for further information

**PORTABLE MACHINERY CO., Inc.**  
**PASSAIC, N. J.**

## When We Bought "Lizzie"

The Dodge man said, "Our car is too expensive for you. What you need is a Ford. But remember just this from me:—

**"TAKE IT AS YOUR UNCLE HENRY HANDS IT TO YOU."**

And we did.

Said the Dodgerite, "The Ford people have made not thousands but millions of these cars and they know just what is needed to get you there and back. They have cut out all else."

Simplicity is the secret of durability and efficiency.

That is why the talking machine is so popular.

In Coatesville almost every mill man has his Tin Lizzie and his Phonograph.

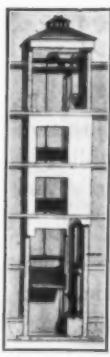
And both are always on the go.

Your "Uncle Billy" has done with the Freight Elevator what your "Uncle Henry" has done with the Universal car.

**"YOU SEE THEM WHEREVER YOU GO**

**AND THEY GO WHEREVER YOU SEE THEM."**

The fact of the matter is that if a man has steam and needs a freight elevator he makes the mistake of his life if he does not go to a little trouble to find out why over 2000 big concerns like these



Elevator in Large Soap Factory in Jersey City



Double Geared



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International Harvester Co.  
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are so crazy to

**"Hook 'er to the Biler"**

**The Ridgway & Son Co.**  
**COATESVILLE, PA.**

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T. FRANK WILHELM, Manager

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**GRINDING WHEEL DRESSERS**

of Every Description

**"HUNTINGTON"—"DIAMO-CARBO"—"SHERMAN"**

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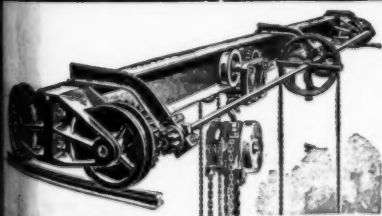
The Desmond-Stephan Dresser Co.  
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**American Elevators** Built by **AMERICAN ELEVATOR & MACHINE CO.**  
INCORPORATED  
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**HAND—BELT—ELECTRIC  
AND HYDRAULIC**

**MACHINISTS AND FOUNDERS  
CHARLOTTE, N. C.**



**OUR TRAVELING  
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will solve your conveying of material problem.

Catalog and Information Free

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Long Life  
Bushings  
In Spite of Neglect

**Oil-less**

**"NIGRUM"**  
(Impregnated Wood)

**"BOUND BROOK"**  
(Graphite-and-Bronze)

**Bushings**

Trade Mark Reg. U. S. Pat. Off.  
All genuine Graphited Oil-less Bushings have always  
been made at Bound Brook, U. S. A.  
**BOUND BROOK OIL-LESS BEARING CO.**  
Bound Brook New Jersey  
Specialists in the manufacture of Oil-less Bushings for more than a third of a Century

**You Get the Speed, Lift and Endurance**

WITH

**WRIGHT  
High Speed Chain  
Hoists**



Handling heavy plates for punching  
with Wright High  
Speed Hoist

They are doing first rate  
work in shops, foundries, fac-  
tories and wherever a hoist  
can be used.

Catalogue R-16 is ready

**WRIGHT MFG. CO.**  
**LISBON, OHIO**



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And yet, simple as it may appear, it typifies at once the South's greatest need and greatest opportunity—the readjustment of the road surface to the new freight vehicle for the hauling of heavier loads with greater dispatch at reduced power cost and lessened wear on the road.

The above view duplicated on all main highways in the South will mean an unparalleled development in agriculture and commerce.

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BIRMINGHAM, ALA.



**A  
Concrete  
Road  
Is  
Permanent**

SAVES GASOLINE

CONNECTS  
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**You Who Are About to Build**

For Permanent Construction  
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ALWAYS UNIFORM

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**Marine "VITA" Glue**

Sets and stays in seams.

Has tenacity and vitality.

For samples and prices, write to

**BINNEY & SMITH COMPANY**

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**IMPERIAL WELDING  
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EQUIPMENT**  
OXY ACETYLENE PROCESS

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OFFICES: 20 Beacon St., Boston, Mass.

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"Every Pound Pulls"

By Using

**HAVEMEYER BAR SERVICE**

YOU GET

**IMMEDIATE SHIPMENT**

**OF YOUR REINFORCING STEEL**

**FROM OUR NEAREST WAREHOUSE**

Birmingham warehouse carries the  
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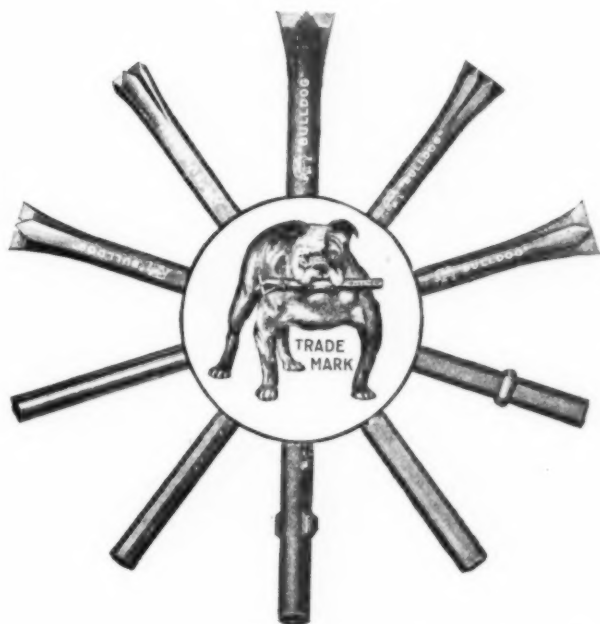
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"BULLDOG" STEEL  
HOLDS ALL RECORDS

EFFICIENT  
ENDURING  
ECONOMICAL

Prompt Deliveries  
from Stock



HOLLOW and SOLID.

In ROUND, HEXAGON,  
OCTAGON, QUARTER  
OCTAGON and CRUCI-  
FORM.

If you want the Best  
It is "BULLDOG"

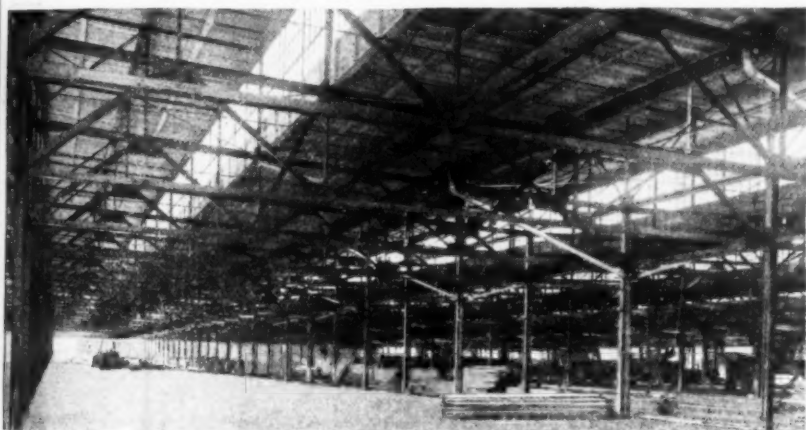
MADE-UP STEELS in all standard sizes a Specialty. Lengths Shank, Collared and Bitted from 12" to 12'. Send for our prices.

Made Only by the

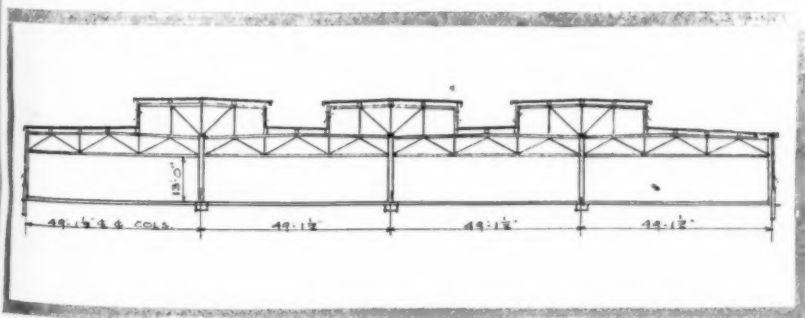
**INTERNATIONAL HIGH SPEED STEEL COMPANY**

Works: ROCKAWAY, N. J.

99 Nassau Street, NEW YORK



The size of buildings based upon this unit is unlimited. The bays in Austin No. 3 Standard are 50 ft. wide by 20 ft. long, and the full unit width is 100 ft. This building covers 27 acres of floor-space, 12 acres of which are No. 3 type.



Cross-section showing Austin No. 3 Standard used for covering large areas, as illustrated above.

## 27 Acres Under One Roof in 90 Working-Days

"Somewhere in the U. S. A." this big building—27 acres of floor space—is housing urgent production. It is a typical example of Austin speed in factory construction. 120,000 sq. ft. was completed in 30 working-days; in 55 days, 12 acres of building was ready, and in 90 working-days the entire 27 acres all under one roof was turned over to the owners.

Twelve acres are of Austin No. 3. The unit is 100 ft. wide with clearance of 13 ft. or more as required. Building widths can be increased in multiples of 50 ft. and lengths in multiples of 20 ft. Level suspension for shaft hangers is provided.

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*Industrial Engineers and Builders*

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(55)

# AUSTIN STANDARD FACTORY-BUILDINGS

THE AUSTIN METHOD



# Topping Brothers

**122 Chambers Street  
NEW YORK**

Our stock of **HEAVY** and **MARINE** Hardware is the largest of its kind in this country.

Let us figure on your requirements of

**BOLTS, NUTS, RIVETS, CHAINS  
TACKLE and CHAIN BLOCKS  
TREENAIL AUGERS  
SHACKLES  
RIGGER SCREWS**

**All Kinds of JACKS, SHIP CLAMPS  
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**CARGO BOOM and MAST FITTINGS  
CONTRACTORS' SUPPLIES**

**BESSEMER**

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**OPEN HEARTH**

**BILLETS, BLOOMS, SLABS, SHEETS, BARS**

*"Pioneer" Pig Iron*

*Merchant Bars, Shapes, Skelp, Shafting,  
Old Rail Bars, Special Sections,  
Mine Rails, Twisted Squares*

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*Standard Black and Galvanized "REPUBLIC PIPE" Line Pipe, Drive Pipe, Tubing and Casing*

*Boiler SHEARED PLATES Flange  
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**General Offices: Republic Building, Youngstown, Ohio**

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## COMPARE

The contents of the two hands. You want your forging order completed promptly? Then place your order with us and we will make a right-handed job of the rough turning

**CAMDEN FORGE CO.**  
**CAMDEN, N.J., U.S.A.**

**STEEL**  
WHEN YOU WANT IT

**\$15.45**

Is saved on every thousand rivets driven by making your rivet sets from the new

**VICTORY STEEL  
No. 29**

driving 5000 or more rivets per set on every-day work before renewal or replacement as against 150 per set made from ordinary Carbon Steel.

If this saving of \$15.45 on every thousand rivets driven interests you, we expect to hear from you, and our tip to you is to do it soon, because rivet sets made from "Victory 29" are

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Poughkeepsie, N. Y.

**Aborn Steel Company, Inc.**

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269 Drexel Building

BUFFALO, N. Y.  
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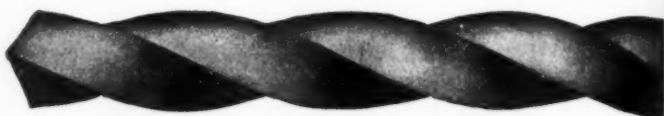
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**STEEL  
BARS**

**For Manufacturing Purposes**

We make all grades of steel to meet various trade requirements, such as Dead Soft Welding and Forging, Threading or Bolt Stock, Soft and Medium Merchant or Machine Steel, Soft Standard, Medium Hard, and High Carbon Steel Bars.

**ALSO**

**CONCRETE** (ROLLED IN ACCORDANCE  
WITH MANUFACTURERS  
STANDARD SPECIFICATIONS)  
**STEEL BARS FOR REINFORCING CONCRETE  
COLD TWISTED SQUARE BAR**



Cold Twisted Squares, Plain Squares, and Plain Rounds.

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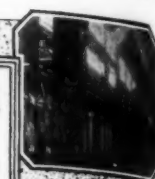
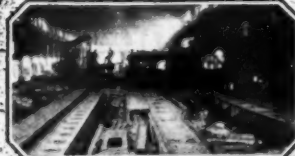
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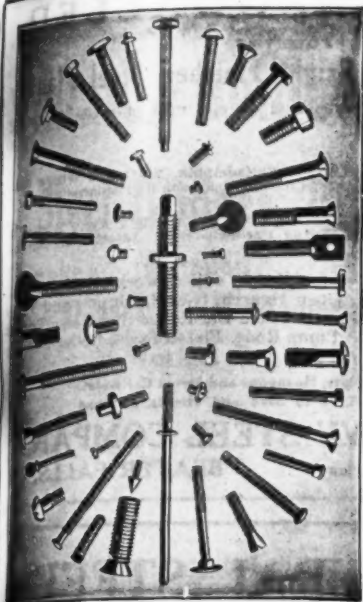
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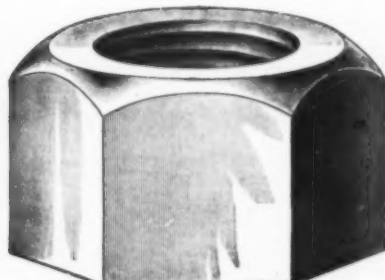
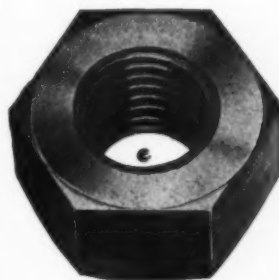
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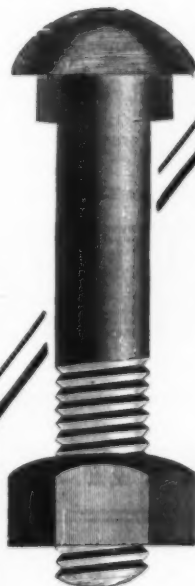
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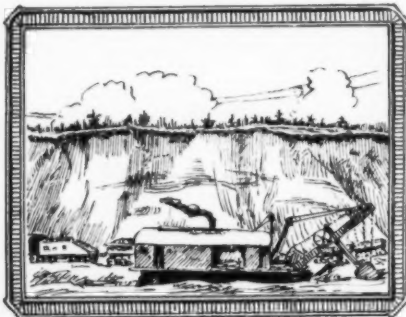
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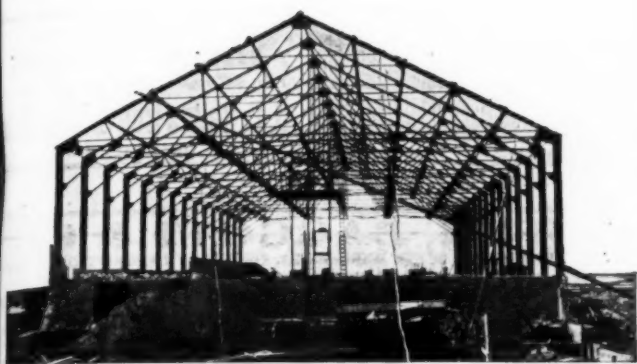
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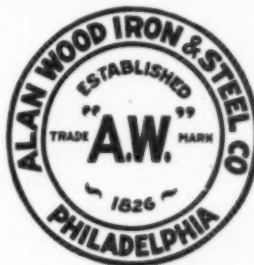
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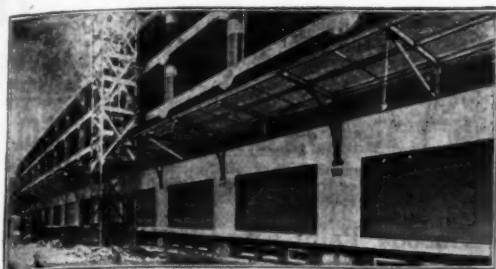
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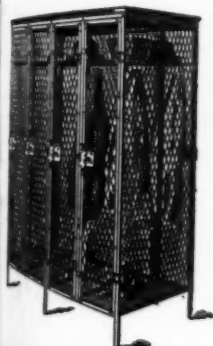
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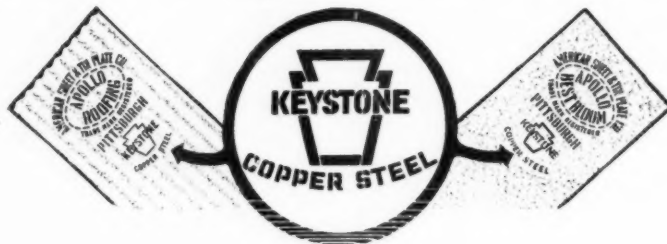
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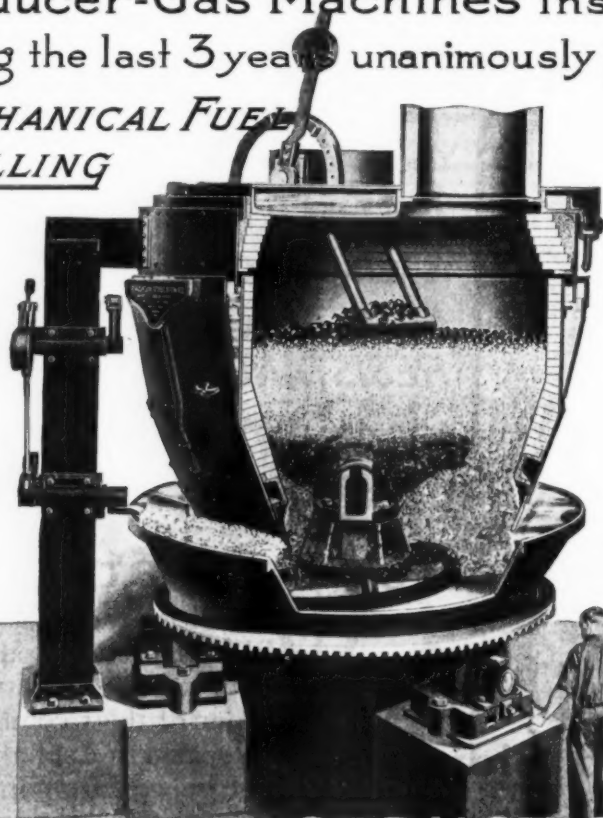


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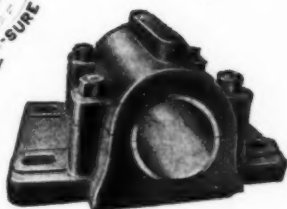
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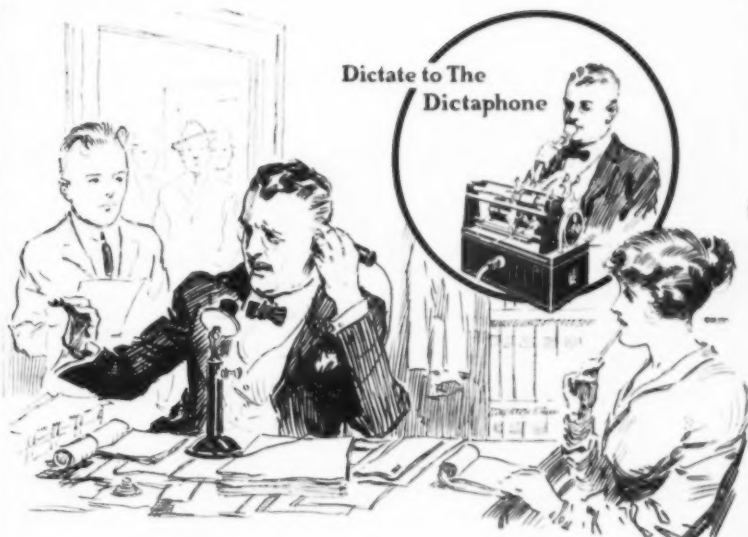
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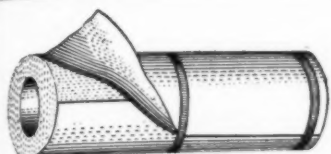
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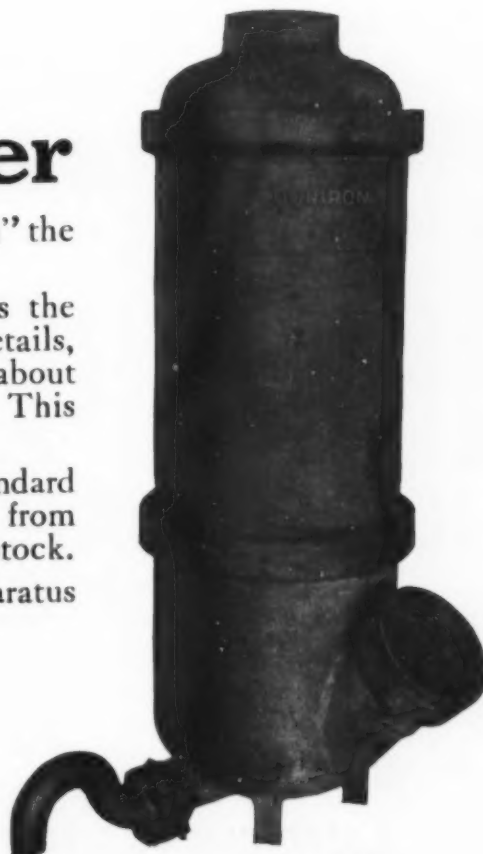
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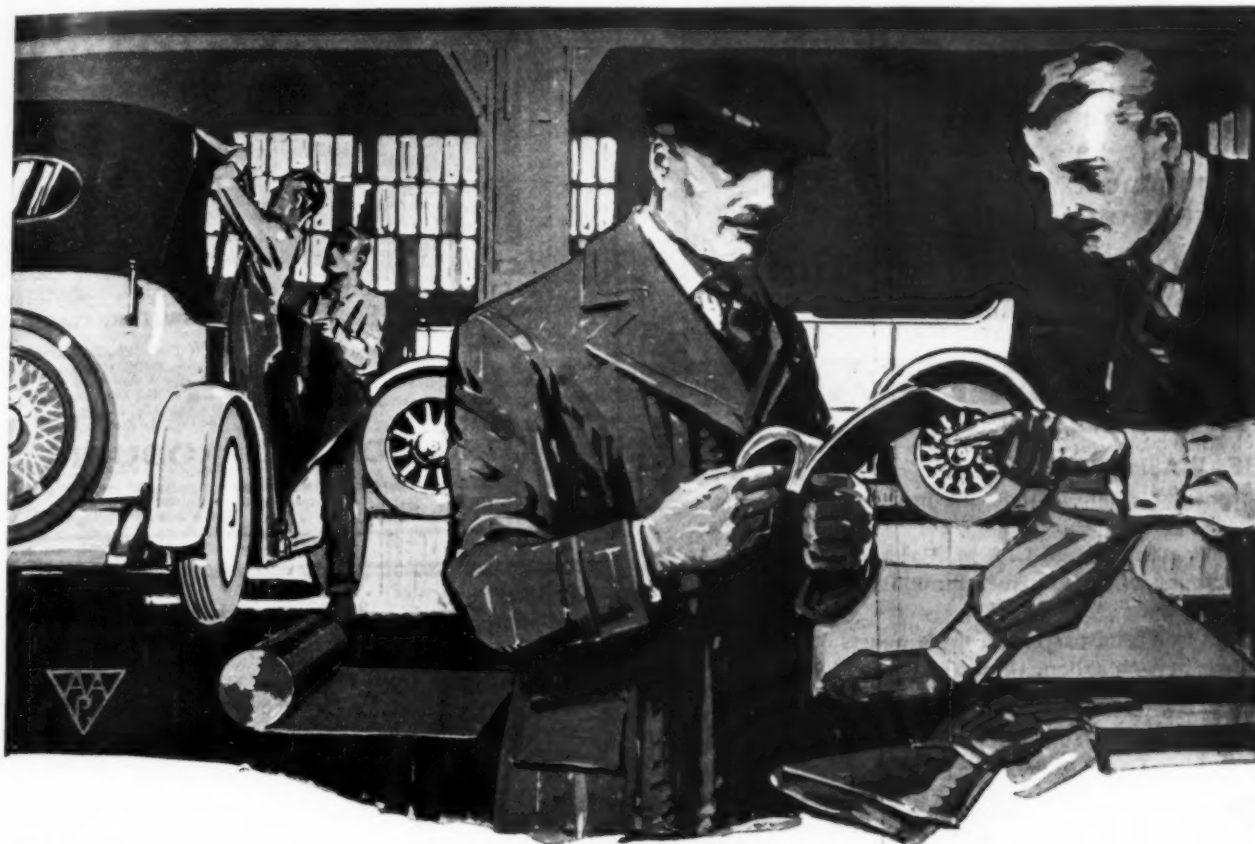
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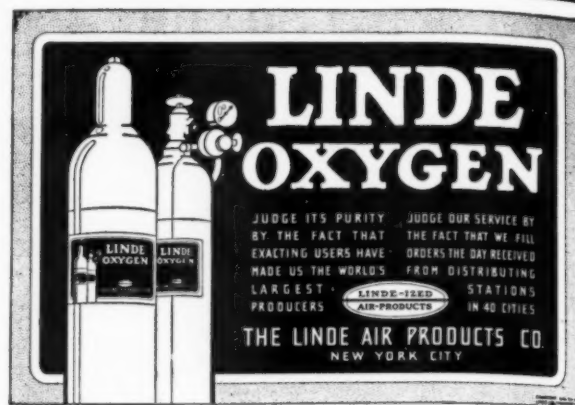
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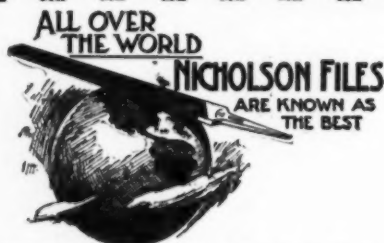
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FRANK GOULD, Vice-Pres. I. S. FIELD, Sec'y.

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"—The mailed fist is our only answer."

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And now the cringing cowards are seeking to secure a peace "honorable to Germany," and some Americans are trying to give Germany:

"A peace without humiliation,"

"A pleasing peace,"

A peace "Without Unconditional Surrender,"

A peace without punishment.

May the great God in heaven forbid that crime shall thus go unpunished and that we shall thus become partners in these crimes!

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"The Colonel is so relied upon here that he will be doubly welcome as the bird with the olive branch."

Bear in mind that that statement appears in Ambassador Gerard's book on pages 95 and 96, and in connection therewith note that in the intimate biography of "The Real Colonel House," by Arthur D. Howden Smith, which is regarded as an official statement of Colonel House's life, the following remarkable paragraph appears:

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Thus the man who is not shocked by the slaughter of this war and is not startled by the destruction in European lands, and who, according to Ambassador Gerard, would be welcomed by Germany as "the bird with the olive branch," and the editor of the New York World, which insists that we must not push Germany to the point of unconditional surrender, are now in Europe, the former as the representative of President Wilson and the latter reported as a semi-diplomatic representative of Mr. Wilson!

Is it any wonder that America is startled?

Is it any wonder that from one end of the country to the other there rises a voice calling upon this country to demand that Germany shall be made to surrender; uncondi-

tionally, and that Germany shall be punished for its crimes?

We believe that this demand will be so overwhelming that even President Wilson must reverse the position which he is supposed to hold, and that before the day of election he, too, must come out and demand unconditional surrender by Germany.

We do not believe it possible even for President Wilson to stand against the overwhelming sentiment of the country and of our Allies if he is, as some of his friends claim, seeking "a peace without humiliation" for Germany; and we feel almost safe in predicting that he will undertake to cut from the Republican campaign the strongest position which it could possibly hold in its demand for unconditional surrender by making some of his notes to Germany, prior to November 5th, a demand of that kind.

In the light of the statements which we have quoted in regard to Colonel House, it is interesting to note what Mr. David Lawrence, one of the supposed spokesmen for Mr. Wilson, says in regard to House's visit to Europe. According to this statement, Colonel House has gone abroad to convey to the Allied Governments the President's desire for a "healing peace." It is an amazing statement, but it needs to be read and studied. It appeared in one of the letters of Mr. Lawrence in the New York Evening Post and other papers of October 25. It is as follows:

Colonel House goes abroad at a moment when he can advise the Allied Governments of just what the President's views are concerning a HEALING PEACE, one that will eliminate Kaiserism and large standing armies which will not destroy the German nation, but enable it to be admitted to a league of nations when once it sets up a democratic government responsible to the people only.

Our task is the death of Germanism. Our task is to conquer Germany and punish with death the criminals who have brought on this war and to lay upon the German nation a penalty equal to the entire cost of the war to all of the Allies and America included, and then, and then only, will German people believe that right is greater than might. Then, and then only, will they believe that their action has really been defeated.

If our armies are halted outside of Germany by any form of surrender, and are not permitted to enter Berlin, the German people as a whole will never believe that Germany has been licked, and in the German people from the highest to the lowest the flags of the Allies and of America hang in triumph.

Ponder over these facts, study their limitless potentialities for evil, and make your voice heard in a mighty chorus that shall not go unheeded.

ON TO BERLIN!

UNCONDITIONAL SURRENDER!

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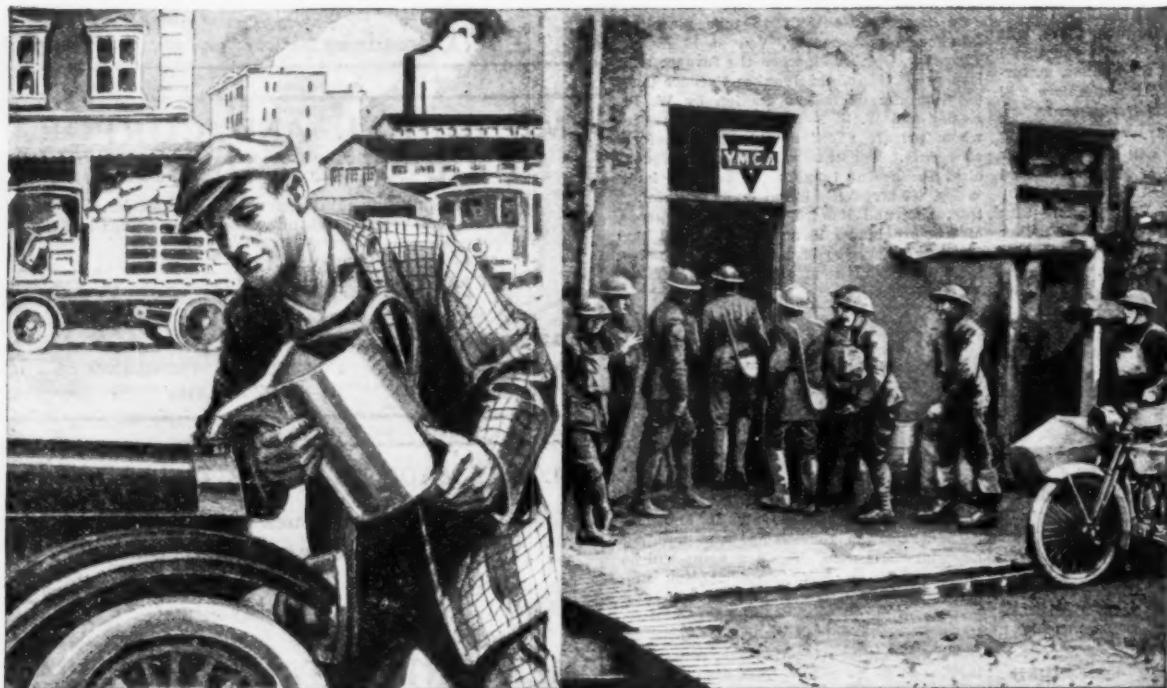
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### The Y. M. C. A. in France Needs 75 Truck Drivers and 25 Automobile Mechanics

every month. And you can help us get them.

We can take only men who are over 37 years old and are not in Class 1 of the draft. The men we want are hard to get at directly.

Will you call the drivers and mechanics in your employ—or whom you know—into a meeting—explain the situation to them—the great need for their service—the great and honorable service they can render—and then put us in touch with the men who may be willing to undertake this great service?

The Y. M. C. A. is doing a great big work in France—it is helping our fighting men to keep in fighting trim.

One of its greatest needs is adequate transport facilities. Y. M. C. A. service for nearly two million men requires a *lot* of transportation work.

We have to move our goods and keep them moving—from ships to warehouses, to canteens, and to points behind—and *on*—the fighting lines.

We have the goods and the trucks. We need the *men* to man those trucks and keep them going.

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Will you do it?

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WEEKLY.

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Bear in mind that that statement appears in Ambassador Gerard's book on pages 95 and 96, and in connection therewith note that in the intimate biography of "The Real Colonel House," by Arthur D. Howden Smith, which is regarded as an official statement of Colonel House's life, the following remarkable paragraph appears:

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all."

Thus the man who is not shocked by the slaughter of this war and is not startled by the destruction in European lands, and who, according to Ambassador Gerard, would be welcomed by Germany as "the bird with the olive branch," and the editor of the New York World, which insists that we must not push Germany to the point of unconditional surrender, are now in Europe, the former as the representative of President Wilson and the latter reported as a semi-diplomatic representative of Mr. Wilson!

Is it any wonder that America is startled?

Is it any wonder that from one end of the country to the other there rises a voice calling upon this country to demand that Germany shall be made to surrender uncondi-

tionally, and that Germany shall be punished for its crimes?

We believe that this demand will be so overwhelming that even President Wilson must reverse the position which he is supposed to hold, and that before the day of election he, too, must come out and demand unconditional surrender by Germany.

We do not believe it possible even for President Wilson to stand against the overwhelming sentiment of the country and of our Allies if he is, as some of his friends claim, seeking "a peace without humiliation" for Germany; and we feel almost safe in predicting that he will undertake to cut from the Republican campaign the strongest position which it could possibly hold in its demand for unconditional surrender by making some of his notes to Germany, prior to November 5th, a demand of that kind.

In the light of the statements which we have quoted in regard to Colonel House, it is interesting to note what Mr. David Lawrence, one of the supposed spokesmen for Mr. Wilson, says in regard to House's visit to Europe. According to this statement, Colonel House has gone abroad to convey to the Allied Governments the President's desire for a "healing peace." It is an amazing statement, but it needs to be read and studied. It appeared in one of the letters of Mr. Lawrence in the New York Evening Post and other papers of October 25. It is as follows:

Colonel House goes abroad at a moment when he can advise the Allied Governments of just what the President's views are concerning a HEALING PEACE, one that will eliminate Kaiserism and large standing armies which will not destroy the German nation, but enable it to be admitted to a league of nations when once it sets up a democratic government responsible to the people only.

Out of the House mission important results are expected to come. He has been singularly successful with European statesmen in the past in bringing them to a better understanding of the American viewpoint than they can get by fragmentary cablegrams in critical moments.

He doesn't exactly speak instead of the President, because Mr. Wilson reserves the privilege of decision for himself in most matters, but he does speak on behalf of Mr. Wilson. He explains the Wilson viewpoint and follows the Wilson instructions and reports back faithfully what is said to him. He is a personal representative of the President because he knows the President's mind well, besides being a close friend and supporter, but he is really an ambassador-at-large with a commission enabling him to enter any capital in Europe and get access to the responsible leaders of the Government as well as all political parties.

Ponder over these facts, study their limitless potentialities for evil, and make your voice heard in a mighty chorus that shall not go unheeded.

## ON TO BERLIN!

### UNCONDITIONAL SURRENDER!

## WHAT SHALL BE AMERICA'S ANSWER TO GERMAN PEACE PLEAS?

UNDER the above title we have reprinted in leaflet form the wonderful message to America by Rev. Newell Dwight Hillis, D.D., published in the MANUFACTURERS RECORD of October 17, almost immediately upon Dr. Hillis' return from his second visit to the battlefields.

The title of his article was "The Hour Is Big With Destiny—Only Safe Word Is Unconditional Surrender."

In connection with that article, and as a portion of the leaflet, we have reprinted five recent editorials from the MANUFACTURERS RECORD as to what America's answer should be to every peace plea from Germany and her allies. These editorials embody the statements which have appeared from time to time as to why we should demand unconditional surrender, why our armies should march on to Berlin, why we should inflict the death penalty upon the criminal leaders, why Germany's battlefleets and merchant marine should be confiscated as a part payment for the ships murdered by submarines, and why the entire cost of the war to the Allies and America should be placed upon Germany, and the reasons given showing why Germany could pay this stupendous bill.

Civilization faces its most tremendous task and must now prove its right to exist. Is civilization equal to the call of God to punish crime by a nation of criminals as freely as it punishes crime of the individual assassin and rapist? If it halts and refuses to do its duty, then surely the nations of the world are not worthy of Almighty God's blessings and should perish from the earth. The 20th verse of the 8th chapter of Deuteronomy says:

"As the nations which the Lord destroyeth before your face, so shall ye perish; because ye would not be obedient unto the voice of the Lord your God."

On to Berlin, and Death to Germanism!

This 16-page leaflet or pamphlet should, we believe, be very widely distributed throughout the country. Elsewhere appears an advertisement giving the price at which it can be had, but we wish to reiterate the fact that any of our readers, whether they be subscribers or not, can republish at their own expense any of this matter or all of it. Our only aim is to spread it broadcast. It is no way copyrighted; it is open to republication by anybody who desires to do so in the interest of the country and of humanity, but if you desire copies of the pamphlet as published by us for distribution among your friends, particulars will be found in the advertisement.

## WHITHER ARE WE DRIFTING?

IMAGINE, if you can stretch your mind to that attenuation the asininity of a resolution offered by Senator J. Ham. Lewis that the Senate vote an approval of anything President Wilson may do in peace matters in advance of his doing it! Is it conceivable that even Germany could ever have produced so asinine a proposition? And yet here is what Lewis, the spokesman in the Senate for the Democratic party, offered:

"That the United States Senate approves whatever course may be taken by the President in the matter of his replies and dealings with the German Government. Further, \* \* \* that the Senate endorses and approves whatever methods he may employ to achieve the result of a victorious peace \* \* \* and endorses such determination as he shall reach as to the manner best calculated to preserve the dignity of the nation and its complete vindication."

Have we drifted thus far that not even the vestige of our Constitution is left?

## WHO COUNSELS PEACE?

[Written by Robert Southey, in 1814.]

Who counsels peace at this momentous hour,  
When God has given deliverance to the oppressed  
And to the injured power?  
Who counsels peace, when Vengeance, like a flood,  
Rolls on, no longer now to be repressed;  
When innocent blood  
From the four corners of the world cries out  
For justice upon the accursed head;  
When Freedom hath her holy banners spread  
Over all nations, now in one just cause  
United; when with one sublime accord  
Europe throws off the yoke abhorred,  
And loyalty and faith and ancient laws  
Follow the avenging sword?

## LINCOLN'S PEOPLE.

By WENDELL PHILLIPS STAFFORD, Justice Supreme Court, District of Columbia.

Thank God for Lincoln's people,  
The true, plain common folk,  
Who mean what they say and say what they mean,  
And fight with a straight-out stroke.

They will not parley with robbers  
Nor dicker in blood and death;  
They love Grant's ultimatum,  
Who never wasted breath.

Diplomacy has twistings  
They do not understand;  
They know a thug should not be left  
With a bludgeon in his hand.

They have a king called Freedom,  
And this is the law they make:  
If you strike at the king, you must kill him—  
Your own life is the stake.

Their feet are on the war-trail;  
They will follow till they find.  
But he who dares to lead them  
Must never look behind.

## WORLD EDITOR ON DIPLOMATIC MISSION.

"IT became known yesterday that Frank I. Cobb, chief editorial writer of the New York World, is on his way to Europe on a semi-diplomatic errand. Friends of Mr. Cobb said yesterday he was expected to return in six weeks or two months. It is the impression of Mr. Cobb's friends that he is to canvass the situation abroad and report his conclusions to the President.

"Mr. Cobb is one of the very few editors who have had close relations with Mr. Wilson. He has been a frequent visitor at the White House. At the time Lindley M. Garrison resigned from the Cabinet it was said by Mr. Cobb's friends that he could have had the post now occupied by Secretary Baker.

"The World has often been supposed to speak for the Administration."

The foregoing from the New York Tribune must be read in the light of a leading editorial in a recent issue of the World, taking the ground that there was no necessity for the war being pushed to the extent that would require "unconditional surrender" by Germany.

The World has been accounted one of the strong mouthpieces of President Wilson. It has recently insisted that the war must not be pushed to unconditional surrender, and now its chief editorial writer, an intimate friend of President Wilson, is sent to Europe on a secret semi-diplomatic errand.

Who inspired the editorial in the World that we should not demand unconditional surrender by Germany?

From whence came the thought that there was no necessity for unconditional surrender as voiced in that editorial?

We sincerely trust that Editor Cobb of the World did not in any way whatever receive an intimation that President Wilson did not desire unconditional surrender, and we trust he is not in Europe on any mission connected with bringing about a peace on any other basis than that of "Unconditional Surrender by Germany."

## A SUPPOSITION — WHICH DO YOU CHOOSE?

TWO men are running for Congress;  
Both are enthusiastic for the war;  
On that ground they are equal.

One is a Christian gentleman of the highest character, fully equal to Congressional responsibilities, an honor to his community and to his country.

The other is a candidate of rotten corruption, debasing methods, an upholder of the most disreputable liquor traffic, of gamblers and horse-race gambling touts.

Which do you choose?

President Wilson shocks the world's moral sensibilities, lessens the nation's moral fiber, and says to the young men of the country, "Rotten political gambling, whiskey-upholding men are worthy of your vote if they belong to my party."

Surely the great moral leader of the nation has fallen under the influence of evil teachings.

Come back, Mr. Wilson, to higher standards, for the nation cannot afford thus to be taught that political rottenness can meet with your approval.

## WHISKEY A DEADLY DANGER IN INFLUENZA, AS STATED BY ONE OF WORLD'S FOREMOST PHYSICIANS.

SEVERAL years ago, when Rev. F. B. Meyer, D.D., one of the great preachers of England, was in Baltimore, he asked the writer for some information in regard to Dr. Howard A. Kelly, and in connection therewith made the following statement:

"Some time ago Dr. Kelly was to perform a very difficult operation before most of the leading physicians and surgeons of London. Before beginning his work, he somewhat amazed the doctors who had gathered to meet him by asking that they bow their heads while he uttered a prayer that he might be divinely guided in the operation to be performed.

"This simple and natural act of Dr. Kelly," said Dr. Meyer, "made a profound impression in London, and I have been wondering if it is his usual custom."

Dr. Kelly is one of the world's foremost physicians and surgeons, known wherever medicine and surgery are known. He is an unceasing worker against the liquor traffic as a demoralizing power, for which there is no excuse in morals or in medicine.

Recently the liquor interests of the country have been carrying on a vigorous and aggressive campaign in an endeavor to create the impression that whiskey is essential in the treatment of the epidemic of influenza. Dr. Kelly, than whom there is no higher authority in medicine, in a letter to the MANUFACTURERS RECORD, takes the ground that not only is whiskey wholly inadvisable in the treatment of influenza or of the pneumonia which often follows, but that it is in itself calculated to increase the mortality. And to this Dr. Kelly adds:

"Let me declare emphatically that alcohol is of not the slightest value in warding off influenza. On the contrary; it is calculated to do great harm by lowering resistance and inducing the befuddled patient to expose himself needlessly."

At such a time as this, when the liquor people are making such attempts to re-establish and revamp the whiskey trade, it becomes the duty of every newspaper which desires to save the lives of its readers to publish the facts as given so clearly by Dr. Kelly. How many of them, we wonder, will do it?

Dr. Kelly's letter will be found elsewhere in this issue.



## President Wilson—"No Scruple of Taste Must in Grim Times Like These Be Allowed to Stand in the Way of Speaking the Plain Truth."

OUR justification for plain speaking today is found in the foregoing statement from President Wilson's political address. By this teaching he has thus made it incumbent for us and others to lay aside "scruples of taste" and in these "grim times" to speak as Americans, voicing deepest convictions, regardless of all personal friendships. It is America today for which men must fight, and not President Wilson or any other man. The nation is greater than any man and the nation now calls, in "these grim times," to lay aside "scruples of taste" and discuss President Wilson's plans as we would those of any lesser man.

Lamentable beyond words to express is the deliberate insult offered in this time of world-agony to half of the people of America by the President of the United States. Millions of fathers who have given their sons to die, if need be, upon the battlefields for the safety of the nation and who do not belong to President Wilson's party are deliberately slapped in the face, politically, by the one man who above all others should be far above partisan bias and above such an attack upon the patriotism and integrity of others in such an hour of tragedy and sorrow.

If President Wilson is seeking to bring about, as many fear, "a peace without humiliation for Germany," and, therefore, does not desire any opposition in Congress to that plan, then his appeal to the nation to vote the Democratic ticket for the fall election can be understood, and on no other basis.

At the beginning of the war the MANUFACTURERS LIGAZON persistently urged upon President Wilson that he should show by every act and deed and word that this is not a Democratic party war, but a nation's war, and that in order to assure the country that it would be regarded wholly from the viewpoint of the nation and not from that of party lines, he should invite into his Cabinet or into some advisory council a number of the foremost men of the opposition party, and in this way secure the coalition of Democrats and Republicans, all seeking only the good of the country and the hastening of our fighting power to meet the terrific dangers which have faced us.

We regret that President Wilson has looked at the matter from another standpoint, and now seeks the election of those committed specifically to upholding his personal views, or else who through partisan domination would vote under the party lash regardless of what might be their conscientious convictions. In this respect Mr. Wilson affronts his own party as well as Republicans.

Since the beginning of the war the Republicans have been the most aggressive upholders of Mr. Wilson's campaign, as far as his campaign meant preparations on the largest possible scale for the creation of a great army and navy and for forcing the fighting. The only way in which the Republicans have in the slightest disagreed with Mr. Wilson has been that they have been more aggressive than some of his plans. They were more aggressive at the beginning than was the War Department, and they ceaselessly have stood by every effort made to strengthen the fighting power of the nation.

It is a well-known fact, known to the people of this country as well as to the people of Europe, that the Republican leaders in Congress and in the country at large are aggressive in the demand that

this war shall be fought to a finish, and to the unconditional surrender of Germany, while many fear that Mr. Wilson is anxious to give Germany "a peace without humiliation." It is not possible, therefore, to accept President Wilson's statement that the election of a Republican Congress would be interpreted in Europe in any other way than that the nation is determined to push the war with the utmost vigor and to demand unconditional surrender for Germany. Our Allies and Germany know full well that the Republican leaders openly demand unconditional surrender and punishment. Does the President go as far as that?

**If President Wilson will now insist that he will use the utmost power of this nation to enforce Unconditional Surrender upon Germany, the death penalty for its criminal leaders and full reparation, restitution and indemnities, he will cut the ground from under the Republicans. Will he do so? If not, why not?**

President Wilson says that the Republican leaders in Congress have been unquestionably pro-war, but they have been anti-Administration, and on this he appeals to the nation not to vote for Republican Representatives or Senators. This puts the matter in an unfortunate light. It is greatly to be regretted that the President of the United States should put himself and the nation in a position that he asks the voters to support Democrats, not on the ground of the war, but as to whether the people have been for or against the Administration, when it is a known fact that the only way in which the Republicans have been anti-Administration in regard to the war is that they have been more vigorous in demanding preparedness for war and in pushing the war than Mr. Wilson himself. Lamentable, indeed, is this position. No wonder intelligent people, Democrats as well as Republicans, profoundly regret that President Wilson has thus lowered his own dignity.

Regardless of the character of some who may have been nominated by the Democrats, even if they be disreputable whiskey-upholding men, if they bear the Democratic tag and will be subservient to Mr. Wilson's views, they must, according to the President's demands, be elected. Under this request the most disreputable politician in the country may receive the enthusiastic endorsement of the President of the United States as against the most thoroughly upright, conscientious, patriotic and Christian gentleman. The voters are thus asked to stultify their conscience and their manhood and vote for some unscrupulous, dishonest politician merely because he wears the Democratic tag. This amazing appeal comes from the President of the United States, who should be the leader of the moral forces of the nation.

Mr. Wilson has made a mistake. His warmest friends cannot possibly in their hearts avoid realizing that the blunder is so great that it seriously handicaps all of his future work.

Since it was established, this paper has been absolutely non-partisan. It knows neither friend nor foe so far as politics is concerned. And from the beginning of the great world-war, in 1914, until April, 1917, the MANUFACTURERS RECORD gave its energy largely to the one supreme task of arousing this nation to the certainty that we would become involved in war and to our duty to be ready for it.

Since America entered the war we have never ceased to urge that we shall carry it forward on the largest possible scale to overwhelming military victory, and to the adequate punishment of the greatest criminal nation of history.

If we felt that the election of a Democratic Congress would better serve these ends and protect and safeguard the future of this nation and of civilization than the election of Republicans, we would of necessity have to desire an overwhelming Democratic victory, but in view of the issue raised by President Wilson and of the fear that he seeks to save Germany from punishment, we are compelled to believe that the only ground on which he could have made the statements which appear in his appeal is that he desires a Congress which will accept his dictation in the making of peace terms, even if those peace terms should not be in harmony with the moral sentiment of this country.

There are sinister rumors abroad that it will be the aim of President Wilson to bring about a peace without punishment of Germany, a "pleasing peace," a "peace without humiliation to Germany," and however strong he may denounce the German Government, that fact counts for nothing until he recognizes that the German nation as a nation gladly and joyously entered upon the war for the purpose of murdering millions and looting the world. The German Government could not have carried on the war if it had not been backed by the German people, and one expression of the views of the German people is found in the statement which we lately published, in which the Baptists of Germany, who are certainly not connected with the military or governing element, recently officially insisted that the "German Government had done nothing contrary to the wishes of the German people."

It is with such people as these that the nation must deal. They cannot be reached in any other way. The German Government might meet President Wilson's demand for an overturning of the present autocratic power, and yet Kaiser Wilhelm as King of Prussia (and for the first time in any of Mr. Wilson's correspondence the Kaiser was last week mentioned as "the King of Prussia") might be overthrown as the German Emperor and still continue as the King of Prussia. Should this come about, the German Government would have met Mr. Wilson's requirements by temporarily getting rid of the Kaiser while Prussia might hold him as its honored King, and this would give him the chance the moment peace was declared to reorganize the military element and re-establish the Empire of Germany and again lord it over all.

Our task is the death of Germanism. Our task is to conquer Germany and punish with death the criminals who have brought on this war and to lay upon the German nation a penalty equal to the entire cost of the war to all of the Allies and America included, and then, and then only, will German people believe that right is greater than might. Then, and then only, will they believe that their nation has really been defeated.

If our armies are halted outside of Germany by any form of surrender, and are not permitted to enter Berlin, the German people as a whole will never believe that Germany has been licked, and until the German people from the highest to the lowest see the flags of the Allies and of America floating in triumph over Berlin, and until there are some millions of our soldiers and those of the Allies marching through their country, they will never believe but what Germany has merely made a temporary truce in order to get ready for the next war.

Therefore, in the coming election, we believe that,



entirely disregarding President Wilson's erroneous and much-to-be-regretted political appeal, the voters should vote, based on the moral standing of the candidates and on their enthusiastic, undying determination to force this fight to a finish and to settle it in Berlin, and to so legislate afterwards that our country shall not become the dumping ground for German goods.

Any man who in such an hour as this permits the President's appeal to cause him to vote contrary to his convictions will be false to civilization, recreant to humanity and a cowardly follower of the party lash.

### ON TO SODOM!

Germany is seeking to move hell and earth to keep the armies of America and our Allies from invading their country. They will do anything in the way of a nominal change of government; they will sign treaties with pens dipped in hypocrisy and lies in order to say to their people that no American or Allied armies ever invaded their country, and within a few years the German people, it matters not what form of government they have, will be planning for another war unless Germanism is CRUSHED NOW.

The German nation and the German people, regardless of the form of government, are murderers, liars and hypocrites, burglars, freebooters, thieves and rapists, and if here and there may be found a Lot among them their number is too small to affect the situation or to save this Sodom of rottenness from punishment.

### ON TO BERLIN!

### THE KIND OF A DEMONSTRATION AGENT TO HAVE.

YAZOO county, Mississippi, has become a fine stock-raising county because one man's energy was so great that things had to move out of the old one-crop-cotton rut into which they had become fixed. In a note accompanying an article on the development of stock-raising in Mississippi, our Jackson correspondent gives this sidelight on the compelling force of Yazoo county's demonstration agent:

Pig clubs made the hog business in Mississippi, and that isn't a bit of an exaggeration. This man Ritch in Yazoo county is a wonder. He's the most energetic person I ever saw, and carries around more common sense than 10 average demonstration agents. They all do good work, these agents, but Ritch is a king-pin. He and a queer-looking Ford have given Yazoo county a new lease on life. The folks over there say his flivver doesn't need any gas; that it just has to run when he gets in it because of his own energy.

### WHAT THE LIQUOR TRAFFIC DOES.

THE Hillsborough County (Fla.) Prohibition Club has issued an advertisement against the whiskey traffic, in which it says:

"The MANUFACTURERS RECORD, that great industrial luminary that shines forth from Baltimore with regularity and great brilliance, is no straddler. To use a slang expression, it doesn't wait to see which way the cat is going to jump; it makes no Bulgarian peace. What it is for, it is for, and what it is against, it is 'agin' with all its power. With a broad and clear insight into industrial and commercial conditions of the country, it has waged a relentless war on the liquor traffic for years."

Yes, the MANUFACTURERS RECORD is against the whole liquor traffic, a business which in its villainess matches the villainess of Germany's war upon civilization. The liquor traffic lives on the tears, the broken hearts, the besotted manhood, the lost souls of those who come under its accursed power. It marshals its forces for corruption of the young, it encourages immorality, it thrives on crime and creates crime for its own prosperity, it betrays youth and sends young and old of all classes and both sexes to ruin here and to eternal death as a part of its regular daily work. It lessens the economic power of the nation and enormously increases the deaths of our soldiers and of people at home by lessening the output of coal and other things needed for the war.

### IS THIS ANOTHER PRO-GERMAN SCHEME?

THE organization calling itself "World Peace Association," with headquarters at Northfield, Minn., is sending out broadcast a publication entitled "Light," which carries the statement that "it is published entirely in the interest of humanity." "Darkness," we think, would be a better title.

A brief examination of it creates the impression in the mind of any intelligent man that it is more than likely that the "interest of humanity," as viewed by "Light" is in the interest of Germany.

The fact that it carries an enthusiastic endorsement from Senator LaFollette is, of itself, enough to damn it in the eyes of all decent, self-respecting Americans. Many of the other endorsements are from names which are, to say the least, suggestive. They include, for instance, such names as Bucheit, Erickson, Trechsel, Schoof, Krohn, Leibenow, Knackstedt, and many of the same kind.

It also carries a letter of endorsement from "Miss N. L. Miller, president of the A. W. S. N. of Roland Park," in which Miss Miller writes:

"We are very glad to know that your organization is working for the cause of humanity, as we are doing and have done for months past."

Now, it so happens that Miss N. L. Miller of Roland Park, Baltimore, was the organizer of and president of the society known as "The Organization of American Women for Strict Neutrality" for which the initials "A. W. S. N." we presume, stand. That organization was founded shortly after the beginning of the war by a lot of German women, some of German birth and some of German descent, who camouflaged in Baltimore and elsewhere as American women working wholly in the interest of peace, when they were mainly Germans or of German descent, working wholly to prevent the shipment of munitions to Europe in order that Germany might bring about peace through the destruction of its enemies. The organization had its headquarters in the home of Miss Miller, a rich woman of German descent. It flooded the country with circulars for peace, but neglected to be honest enough to say that the only peace it desired was a German-made peace by keeping America from supplying munitions to the Allies in order that Germany might crush and destroy the Allies and thus destroy civilization. Some of its members had been hating England for years more than they hated the devil himself. It has been stated in some of the newspapers that part of the funds with which this organization operated was furnished through an emissary of the German Government. Every move it made was specifically and directly to mislead the country, and to claim it was working for humanity and peace when it was working wholly in the interest of Germany. It is, therefore, very appropriate that its president should commend the organization headed "World Peace Association," if that is a rotten German propaganda scheme as we rather suspect. We think it probable that Miss Miller's letter is of rather ancient date, for we believe it has been regarded as unsafe for that organization to be in existence since the United States has been at war.

Our readers need to beware of all such so-called "peace" or "humanity" organizations, for some of them are managed with such ingenuity as to deceive even a few intelligent people, though they usually depend upon catching suckers and fools, of which the world is, unfortunately, very full. One can come nearer having some respect for a rotten-hearted German in rotten-souled, rotten-bodied, rotten-hearted Germany than for a pro-German in America.

### READS EDITORIALS WITH KEEN INTEREST.

FORMER Ambassador to Germany, Mr. James W. Gerard, in a letter to the MANUFACTURERS RECORD writes:

"Many thanks for sending me the reprint of those splendid editorials and articles which appeared in the MANUFACTURERS RECORD.

"I read them with keen interest, and only wish to urge you to keep up your good work."

### EVERY PAGE A WOMAN'S PAGE.

THE United States Fuel Administration, in a letter to the MANUFACTURERS RECORD, sends us two manuscripts dealing with the necessity of conservation, expressing the hope that "they will be given space on the Woman's Page."

Now, it so happens that every page of the MANUFACTURERS RECORD is a woman's page. We have no page set apart especially for the frivolities of fashion or society; we have no page which tells of how to can vegetables or to train babies; no page of worthless, sentimental stories, and all of these things are usually found on the so-called "woman's page" of most of the leading daily papers. But we have many pages vibrant with interest to every woman, for, directly or indirectly, as mother, wife, sister or sweetheart, or as a lover of civilization and humanity, every page thrills with interest to every woman.

Every page deals fundamentally with the greatest issue which the world has ever faced, except that one supreme issue of nineteen hundred years ago when Almighty God, through the death upon the Cross of the Christ, offered to mankind eternal life. Nothing else since then is more worthy of every woman's consideration in comparison with the tremendous issue which the world now faces.

The forces of Heaven and the forces of Hell are engaged in this gigantic struggle, and to the people of America and our allied countries Heaven has committed the task of service and sacrifice so that civilization and Christianity itself may be maintained upon the earth.

What else is there, therefore, of such vital interest to every woman than the facts which pertain to this great issue. If there is in this land a single woman who is not interested in this question above all others, then she must of necessity be a woman without heart or soul or brain, or else a pro-German worker, and that means a pro-devil co-operator.

We rejoice that many women are reading the MANUFACTURERS RECORD in order that they may come in touch more closely than they could otherwise do with what this war means, and so long as this war lasts there is little else in all the world worthy of thought or discussion. Every subscriber should see that his wife and daughters have the opportunity of reading the MANUFACTURERS RECORD, for those who do this write of the enthusiasm of the women folks about it.

In the broad aspect of world affairs this is a struggle not of individual against individual, but of civilization and Christianity as a whole against barbarism and atheism, and upon its outcome will rest the future of billions of people yet unborn and of all the world for centuries to come. This, therefore, is the reason why every page of the MANUFACTURERS RECORD is a woman's page, and why the appeal of the Fuel Administration for conservation of fuel and lights is an appeal which should be heard and appreciated by every woman in the land.

As the Fuel Administration suggests, there are many ways of saving fuel, and the saving of fuel means the saving of the lives of our soldiers. We are often using too much gas or electricity or coal oil. Many lights in halls and bedrooms and elsewhere could be reduced without serious injury from the lessening of the brilliancy of illumination. Many hotels could cut out half of their electric lights without any serious diminution of comfort on the part of the guests. The vast waste of fuel through the brilliant illumination of such resorts as Atlantic City and the enormous amount of lights used for electric signs could be tremendously curtailed. No one can enter any of the great hotels at Atlantic City or step on the Boardwalk without being amazed at the wild waste of fuel and lights. But what is true of Atlantic City is true of many other places in towns and in cities and in private homes. Well may the Fuel Administration urge the people of America to "think of light in terms of lives."

Every unnecessary light adds to the burdens of our soldiers and lessens the facilities of the Government for providing our men with food and fuel, with munitions and with ships.

Save light and thus save lives.

**HOW AMERICANS HELP HUNS SPREAD PRO-GERMAN TEACHINGS.**

MANY patriotic Americans are unconsciously helping the Hun throw monkey wrenches into the machinery of American business, says Mr. R. Adams Dutcher, a member of the Minnesota section of the American Chemical Society. Two very striking instances of how the German propagandist works this nefarious game were brought out at a recent meeting of the American Chemical Society at Cleveland, O.

The first case was cited by a prominent American dye chemist. This gentleman related how, upon opening his package of laundry, he had found a slip of paper stating that since German dyes were off the market laundrymen could not guarantee the domestic dyes and the customer was advised to refrain from buying colored wash goods until after the war.

Knowing this to be untrue, the chemist asked his laundryman where he had obtained such misleading information. The laundryman stated that a laundry journal had been authority for the statement. The editor of the laundry journal said that he was given the information by an officer of a laundryman's association. When this officer was approached on the matter he admitted that he had been responsible for the information, but went on to say that he obtained the information directly from an official of a German company, and then the laundry official clinched his argument with the remark, "these people certainly ought to know." It did not take the chemist long to show the official that he was not only helping the Hun, but that he was hurting the sale of American dyes, which, dye for dye, were fully equal to the German product.

At another time a dye chemist noted the following sign in the bathing suit department of a large New York store:

"Owing to Present Conditions in the Dye Industry, We are Unable to Guarantee the Colors of These Goods."

When questioned closely regarding "before-the-war" bathing suits, the management was forced to admit that it had never guaranteed bathing-suit colors not to fade. "Why, then, do you infer that present conditions have anything to do with the colors in bathing suits?" The management immediately realized that the store was really spreading Hun propaganda, and the signs were removed and replaced by the following:

"We do not guarantee colors in bathing suits not to run, and have never done so. We know of no reputable house that will guarantee colors when exposed to the sea water and sunshine."

The American people should feel proud that the American chemist has been able to accomplish as much as he has in the short time that he has been working. He has absolutely duplicated the German dyes, shade for shade, strength for strength, and quality for quality. Many American dyes are far superior to the German product, for the reason that American ingenuity has improved upon the quality of the raw materials from which the dyes are made, and American honesty is producing a purer product which is not adulterated with inert materials, as was the case with the German product before the war.

Let us realize that the more we insist on "Made in U. S. A.," the better will be the product, for no American manufacturer can put his best efforts into making high-grade products if he is not encouraged morally and financially by a loyal American public.

**GERMANY'S TERMS TO FRANCE.**

WHEN Germany conquered France in 1870, she would not even grant France an armistice until she surrendered the 25 forts surrounding Paris. Germany's peace terms were the relinquishment of Alsace-Lorraine and the payment of a billion dollars, a huge sum at that time. And the German troops remained in France, too, let it be remembered, until the last cent of the money was paid. Has Germany any reason to expect any easier terms now than she granted then when the victor?—Concord (N. C.) Tribune.

Correct, but Germany now seeks to keep our armies away from its sacred precincts and cries for a peace "honorable to Germany."

**ON TO BERLIN!**

**Dynamic in Its Deadly Dangerous Potentialities**

**PRESIDENT BRINGS ABOUT DIPLOMATIC CRISIS OF THE WAR**

**An Explanation or Interpretation Thereof.**

Mr. Lawrence is generally credited with being a mouthpiece or spokesman for President Wilson, and the Baltimore News, to which he sends these letters, recently said:

"David Lawrence, whose Washington dispatches appear daily in the News, is said to be able to predict with more accuracy than any other Washington correspondent what President Wilson may be expected to do in any given contingency."

According to this supposed spokesman for Mr. Wilson, he has created an intense or acute diplomatic situation by demanding that our Allies shall specifically announce whether or not they accept in full his fourteen peace proposals.

No human being can decide exactly what these proposals mean. They might mean one thing to one man and another thing to some one else. Mr. Wilson has already radically changed one of them as to the Czechoslovaks, and neither the Allies nor Germany can say what all of the others mean. Moreover, they open up questions of such tremendous import as to the right of every country or every people to definitely say under what Government they will live, that if put into effect in 1861 they would have compelled the United States to permit the South to set up its independent government, and they would today give any part of this country the right to secede; they would give Porto Rico, the Philippine Islands and Hawaii the absolute right of "self-determination" as to whether they wish to set up independent governments or not, and if they desired to secede from the United States we could not deny them that right. Alaska might withdraw from the United States, and we could not say nay, or Alaska might decide, say, to join Canada, and we would have no right to refuse. Even if by chance it voted to join Japan we could not prevent it, if we should adopt Mr. Wilson's "self-determination" plan for every people in the world. India and Egypt might wish to secede from Britain's control, and Mr. Wilson's plan would compel Britain to agree without quibble.

In connection with this study of President Wilson's peace proposals, as it relates to "self-determination," we must consider one paragraph in his Fourth of July address at Mt. Vernon, which was:

"The settlement of every question, whether of territory, of sovereignty, of economic arrangement, or of political relationship, on the basis of the free acceptance of that settlement by the people immediately concerned, and not upon the basis of the material interest or advantage of any other nation or people which may desire a different settlement for the sake of its own exterior influence or mastery."

On that point we repeat our editorial criticism of July 11 last, in the course of which we said:

"That is a position which we do not think this country has any right to assume. We do not believe that the American men and women who are giving their sons to this war are doing so for the purpose of setting up this lofty idealism; nor do we believe that the men who are engaged in this contest and are offering their lives on the battlefield are laboring under any thought that they are engaged in a war for the purpose of settling every question pertaining to territorial rights of all the nations of the earth. We cannot settle the question as to what shall constitute a 'free acceptance by the people immediately concerned' of governmental and economic plans in all of Russia, nor China, nor Japan, nor India, nor South America, nor in our own Island possessions. We cannot say that if the Filipinos demanded to be freed entirely from control of the United States that it would be the part of wisdom at the moment to separate them from this country. We cannot say that if the people of St. Thomas, or of Porto Rico should prefer their own form of government that we shall immediately grant them complete independence without regard to what influence it might have upon the future of this nation. We cannot say what shall be the relation between Africa, the isles of the sea, India and Egypt and other countries. When we attempt to move into that far distant sphere we are going beyond the limit of our right and of our power."

"We would regard it as a direct insult to the United States if any country on earth should say that willingly or unwillingly we must abandon the Hawaiian Islands, the Philippine Islands, Porto Rico or St. Thomas. We bought St. Thomas without any thought whatsoever as to whether the people on that island wished to be under the domination of the United States or not, and we do not believe it conceivable that this country would take the position that it must abandon this island which we bought for our own protection should the inhabitants decide that they do not want to be a part of this country."

"President Wilson emphasized the fact that the question of territory, of sovereignty, of economic arrangement, or of political relationship must be settled upon the basis of the 'free acceptance of that settlement by the people immediately concerned, and not upon the basis of the material interest or advantage of any other nation or people.' Under this condition if the St. Thomas Islanders desired to be an absolutely independent country, we would have no possible right to deny them that privilege. Should the Philippine Islands, and the Hawaiian Islands, and Porto Rico desire their independence, we would be compelled to grant it to them under President Wilson's plans; for we could not deny to them the right to do that which we are demanding for all the countries in the world. Indeed, broadly stated, if Alaska should vote that, since it was bought from another country, it did not desire to be a part of the United States, and desired its own independence, we would have no right to hold it under our domination."

"We are afraid that Mr. Wilson ventured too far afield and permitted his dazzling power of expressive English and his idealistic imagination to go beyond the safety line, and to lead him out into the twilight zone of uncertainty and danger."

"What this country, in our opinion, is called upon to do is not to lay down theories as to the government of other countries nor to state the terms upon which all the nations of the earth shall adjust their

**Not Only Asks Germany But the Allies Whether They Agree to His 14 Peace Points.**

**MUST HAVE CLOSEST UNITY**

**Germany Could Use Differences of Opinion to Her Own Advantage.**

By DAVID LAWRENCE.  
(Copyright, 1918, by New York Evening Post, Inc.)  
(Special Dispatch to The News.)

Washington, Oct. 24.—Far more than the text of President Wilson's note itself reveals is there a significance to the step taken by the United States Government's positions on peace terms, a step that may well be described as the most serious in the diplomacy of the war itself.

For not only has the President just made answer to Germany, but he has also asked of the Governments associated with the United States whether they agree with his 14 principles of peace.

**Allies Make No Response.**

Mr. Wilson made a most important address on September 27 asking the Allied statesmen to speak their minds on the fundamentals of peace as viewed by the United States, but no explicit response came back. Earlier in the year, indeed, just after the President's address of January 8 proclaiming the 14 articles of peace, Premier Lloyd George and Premier Clemenceau expressed their approval in public speeches, but there never has been a formal acceptance of the 14 peace terms by the Allies themselves.

Germany knows this and many people think that was the real reason for her return to those 14 peace terms as a basis. Germany, moreover, may be seeking an opportunity to develop her own interpretation of these 14 articles. If the Allies at this time discussed them in detail and revealed plainly their disagreement, Germany would use the replies in an effort to divide the Allies and to show her people that England and France are really blocking peace.

**Would Use Differences.**

She would use difference of opinion to get out of a diplomatic hole, because it would be easy for her to argue that she had accepted the Wilson terms and not the Allied interpretations, and that while an armistice under the conditions proposed might safeguard the military interests of the Allies, it would not safeguard the political interests of the German people, who after all are most concerned about their own economic existence.

So the big developments of the peace correspondence must now be expected from Great Britain, France and Italy, and not especially from Germany, for it is fully expected here that Germany will meet the American Government's latest note with a demurrer. She will wait to see if Great Britain and France and Italy mean the same thing about peace that President Wilson does. Her answer may be "before making any reply on the subject of an armistice, we will await the expression of the Allied Governments."



affairs. We do not understand that this is the thing for which we are fighting. What we are fighting for is to save ourselves from destruction by an enemy, the barbarism of Germany, and to destroy that particular barbarism so that it may never again drench the world in blood. But we are not called upon at the present time to set up for all the world an idealism and a Utopia beyond the power of mankind so long as the world is composed of divergent influences, and until humanity has reached the point where the lamb and lion lie down together in peace. Beautiful in theory, but evanescent in this world of realities, is Mr. Wilson's plan for settling all the problems of the earth on the basis of 'the free acceptance by the people immediately concerned.'

#### Dynamic in Danger.

With this situation, dynamic in its danger, Germany, according to Mr. Lawrence, is fully cognizant and is therefore seeking to deliver a blow through its letter writing, which may explode the dynamite, and it is doing all in its power to strike that blow, and by one desperate explosion wreck the alliance between America and the Entente, and through its devilish Bolshevistic work bring chaos to America as it did to Russia.

We warn the nation that there is tremendous danger in this critical situation, unless Mr. Lawrence has absolutely misrepresented Mr. Wilson and has made statements directly contrary to Mr. Wilson's views. Even, however, if this be true the situation developed by the correspondence with Germany and the insistence upon the fourteen peace proposals contain elements of deadly potentialities.

America has no right to dictate to our Allies the peace terms which they shall accept. To suggest such a thing would border on national vanity and presumption which would justly bring upon us the criticism of the nations which fought for three long awful years against barbarism, nations which saved us from ruin. Let us never for one moment forget that our existence as a nation, saved from German domination and damnation, is due to the heroic armies and the battle fleets of our Allies.

#### "Needs Unity of Allies."

This is a suggestive innuendo or slur against our Allies which should make the blood run red hot in every heart. Here is a distinct intimation that if the Allies do not accept terms laid down and dictated by us, then they are charged with selfish interests and their "prestige" may be lessened because they do not think exactly as President Wilson thinks. They did not think that way when he said that Europe must have "peace without victory," which he has since changed by saying we can have "no peace without victory." In which position was he right—before he reversed himself or since?

Mr. Lawrence, who is supposed to be a spokesman for the President, says that this is a "time for plain speaking," and that while the men at the head of the United States want to see the Kaiser and Kaiserism exterminated, they are also anxious that there shall be a peace based on justice; and he lately credited Mr. Wilson as demanding that every nation, "whether it be friend or foe," must come to the peace table ready to pay the price.

Last week we quoted Mr. Lawrence as saying that the President desired to give to Germany a "pleasing peace," and that the President would not permit "friend or foe" to change the fourteen peace terms laid down by him last January.

The President here is quoted as feeling that America has gone into this war unselfishly and has shed her blood for the cause of democracy. If this is Mr. Wilson's idea, it is absolutely incorrect. This country went into the war for the purpose of saving itself from destruction and of punishing the red-handed murderers who killed its own citizens and women and children on the Lusitania. These murderers filled this land with spies and other murderers, bomb-throwers and munition plant destroyers.

It was not unselfishness which sent us into the war, but a spirit of selfishness and self-respect which compelled us to enter the war, or else lose the soul of the nation.

We are not in this war merely "to make the world safe for democracy." We are in this war to save the women and children of America and the women and children of Europe from the most brutal beasts that ever cursed the world with their presence.

#### Needs Unity of Allies.

It is here that the unity of the Allies must come into play; it is here that the closest kind of co-operation must ensue. Again the latest note may be described as bringing the diplomacy of the war to a real crisis, for if the President's democratic aims are not shared by the Allies it is possible that the prestige of our co-belligerents will not be as great as it has been before and the interest of the American people for aims now revealed in selfish terms may be considerably altered.

It is a time for plain speaking. While the men at the head of the Government of the United States want to see the Kaiser and Kaiserism exterminated, they are also anxious that there be a peace based upon justice. Mr. Wilson said in his New York speech that every nation, whether it be friend or foe, must come to the peace table ready to pay the price.

That price is the subordination of such purely selfish desires as represent the viewpoint merely of special interests and privileged classes, and for which the whole world ought not to be asked to prolong the war one moment longer than an accommodation of the rightful interests of all the nations involved can be obtained.

The British Labor party and the French Socialists have subscribed to the President's war aims. To an unprecedented degree does Mr. Wilson, a foreigner, have the confidence of large sections of French and British public opinion. The President feels that America has gone into this war unselfishly, has shed her blood for the cause of democracy, and anything that is at variance with democracy or the permanent interests of an international brotherhood should be dropped from the Allied peace program.

There must forever be amplification of even acceptable principles, but it would be embarrassing, according to the views of the men with whom I have talked, if the Allied Governments yielded at this time to the various elements, Socialists and Conservatives, and pronounced themselves in detail on peace terms.

There will be plenty of opportunity later on for the explicit digression from any interpretation of the articles which may affect adversely the national interests of any Allied Power. For the pres-

#### The Fourteen Peace Terms Might Prove Disastrous to the United States.

Mr. Lawrence says that there will be plenty of opportunity later on for the explicit digression from any interpretation of the

#### A TYPICAL ILLUSTRATION OF HOW THE HUN CONTINUES HIS FIENDISH WORK.

A STORY direct from the captain of a torpedoed ship to a Y. M. C. A. worker, strikingly shows the spirit with which the Hun is carrying on his war. The story is as follows:

Not long since this captain's Norwegian ship was sighted by a German submarine and ordered to halt. The captain stopped the ship, thinking that after investigation he would be permitted to go on his way. But instead of that the ship was fired upon and in a few moments began to sink. The captain ordered the life boats out. Three of them were filled and pushed off just as the ship sank. The people in the boats felt that they would be allowed to drift until picked up by some passing vessel. But not so. Orders were given and the submarine fired on the boat nearest to it, then on the second, sinking both of them. There was a mother with her baby on the third boat. The captain suggested to her that she stand up and lift her baby as high as possible and at the top of her voice cry for mercy, thinking that when the Huns saw the baby they would at least spare the boat, but vain is the hope of mercy from a Hun. The mother's appeal with the uplifted baby was responded to by a quick shot from the submarine which hit the boat, killing several of the passengers and sinking the boat. Most of the people had on life preservers and were soon floundering in the water, still hoping to be rescued by some passing vessel. But the submarine came closer and the men on board drew their revolvers and commenced shooting the people in the water one at a time. Before they had quite finished the job of thus cold-bloodedly murdering all of the people who were in the water, a submarine chaser appeared on the scene. The submarine immediately submerged, leaving three survivors who were picked up by the submarine chaser. One of them was the captain of the torpedoed ship who told this experience.

It is scarcely conceivable that there should be living in this day savages of such inhuman brutality as these Huns, and one might almost doubt the sanity of the captain who made the statement if it were not that his report is but in keeping with the facts which are being constantly developed as to the fiendish work of Huns on land and sea.

Another story matching the atrocity committed upon the Swedish ship was that with which Germany's fiends sank the American ship *Ticonderoga*.

One of the men, Mr. Leonard, saved from that ship came to Baltimore to tell the story to the parents of a Baltimorean, Bobby Burns, who was lost, in order that his parents might know exactly what happened. The story given in the Baltimore Sun by Mr. Leonard is as follows:

"As fast as we dropped a boat into the water the Germans fired upon it. We had 14 boats, and most of them were crashed to pieces before our eyes. We could not fight any longer because they had shot away our other gun. One of our crew, a lad named Edward Davis, from Warrenton, N. C., as game a boy as ever lived, swam to the side of the U-boat, which was hardly a thousand yards away, and pleaded for the lives of the men aboard the sinking ship. When he told the Huns they were killing everyone, a German officer stepped forward and shot him through the head. . . .

"They ordered the captain to stand forward, but it was explained that he was very badly wounded and we requested some surgical dressings. The reply to our request came from one of the Huns, who said the only thing he would give us was an eight-inch shell. . . .

"All during the conversation we were tied to the sub, our bowline having been made fast to their stern. When the hatches were closed the U-boat started below with our lifeboat attached, but somehow the rope either broke or was cut, for we were free at last. After four days of drifting, we were picked up and brought home."

#### AS VIEWED BY DR. HILLIS.

REV. NEWELL DWIGHT HILLIS, D.D., in a letter to the editor of the MANUFACTURERS RECORD, referring to the telegram sent last week to President Wilson, writes:

"I want to congratulate you upon your splendid telegram to the President. It was published today in full in the Globe, and I am sure will have wide influence. No clearer, stronger statement of the issues before the American people has been made than the one found in your open letter."



Mr. Wilson is dealing with broad-changed principles.

#### We Would Welcome Dissension.

Germany would like to see dissension on details. If the Allies confine themselves at this time to an acceptance of Mr. Wilson's 14 principles, reserving to themselves the right at the proper time and occasion to speak their interpretation of those principles, Allied unity will have been preserved and the assumed effort of Germany to divide the Allies will have been completely frustrated.

In a nutshell, the President has by his last note differentiated between the political and military phases of peace negotiations. In America there was exhibited an impatience with peace talk just as it was a trick of the enemy to improve his own military situation at the expense of the Allies. There was a demand, moreover, for no parleying with Kaiserism.

#### Talk Peace With German People.

Both of these Mr. Wilson endeavored to meet in his last note. He will talk peace with the German people when they are rid of Kaiserism. If they remain the militarists, the only terms are surrender.

The President has no patience with those who argue that there should be no talking at all, but only fighting. These critics do not know the tremendous expense in human life of such a policy, as it means at least two years more of incessant fighting, and possibly more, to conquer a whole nation.

He believes the ends of the Allies can as well be accomplished by political revolution inside Germany, which shall not only punish the culprits who started this war and bring reparation, but shall also set a democratic government in Germany which can be admitted into a league of nations. The dangers of the policies of the extremists is that they would lead either to Bolshevism throughout Europe, with a reign of terror inside Germany that would give no reparation and teach no lesson, or would lead to a fight to the finish by a people who believed they might as well die fighting rather than submit to an enemy who intends destroying them anyway.

As the situation is viewed in Government circles, not only would the American people disapprove of such a course, did they truly understand that it merely meant a war of extermination, with heavy sacrifices, that would get no more in the end than the present course is expected to get, but the Allied peoples, who have been in the war four years, would not sustain a bitter-end struggle, unless absolutely necessary to get the right kind of peace.

articles which may affect adversely the national interests of any Allied Power. But Mr. Wilson has insisted that the fourteen peace proposals shall be accepted, and Mr. Lawrence says that the President has determined that they shall "not be changed by friend or foe."

Some of these peace terms will be absolutely contrary to the best interests of America. As laid down by Mr. Wilson he proposed "the removal so far as possible of all economic barriers and the establishment of an equality of trade conditions among all nations consenting to the peace and associating themselves for its maintenance."

Under this it might be insisted that absolute free trade between America and all other countries was one of the essential factors in these peace proposals. This statement is merely an idealistic expression without any force or meaning, or else it is a specific upholding of the right at the peace conference to settle all questions of tariff or free trade between all the countries of the world. The potentialities for evil in this are as great as the potentialities for evil in some of the other peace terms. This country might be engulfed by the rush of goods to America without any protection whatever, which would bring about chaos in all business interests in America. The dangers inherent in this peace proposal are great enough to make the entire American people stop and think. Mr. Wilson's explanation on Monday last that this is not the meaning only shows how impossible it is to interpret the real meaning of any of these fourteen proposals.

Nothing that has been said in these peace proposals indicates any determination on the part of the Government of the United States to insist upon adequate punishment of the criminals guilty of these fearful crimes, nor for any indemnity placed upon Germany for the payment of the vast losses which it has brought upon the world.

We trust that Mr. Lawrence is entirely in error when he says that "the President has no patience with those who argue that there should be no talking at all, but only fighting." on the ground that they do not know the tremendous expense in human life of such a policy, as it means at least two years more of incessant fighting, and possibly more, to conquer a whole nation. **No one knows more deeply, deep down into their very souls, what this fighting means than American fathers and mothers. They know it as Mr. Wilson cannot possibly know it. They know it because their loved ones are in the battle front, and many of their sons have already died for civilization. They are the ones who can comprehend it far more deeply than it is possible for any man to do who has no sons to die on the battlefield.**

We cannot believe that Mr. Wilson is correctly interpreted. We believe this statement of Mr. Lawrence is a definite, diabolical statement of pro-Germanism to discourage America by seeking to make out that to push the war to the limit of unconditional surrender would mean two years or more of incessant fighting. If it be so, then God grant that the war may be pushed for two years, or five years, and every father and mother in America whose son is on the battlefield will utter the same prayer.

We are sure that the last paragraph of Mr. Lawrence's letter is entirely incorrect. The Allied people are determined to carry this war to the limit of punishment of Germany. Every effort to create the impression that a continuation of the war to the crushing of Germanism must be prevented in order to save losses, and because the Allies are not willing to make such sacrifices, is wholly contrary to the facts.

The influence of this letter tends to lessen the morale of America and to bring about a condition which might make some elements of American life willing to accept peace on any terms, for there are still many people in America who believe in peace at any price, and people who are not "too proud to fight," but too cowardly to fight; and the cowards may perhaps make a greater noise by this pro-German activity than those who on the battlefield are dying in behalf of civilization.

In the light of what is now taking place it is not surprising that many serious-minded people are thinking like Bishop William A. Quayle of the Methodist Episcopal Church, who, writing from St. Louis to the MANUFACTURERS RECORD, says:

"We need to be very much on our guard lest the Germans in America make the peace rather than the proper authorities on the field."

#### A PROPHET TRUE.

It is meet to recall at this time, when the Allied forces are pushing the Germans out of Belgium, Col. Henry Watterson's prophecy in the Louisville Courier-Journal of Thursday, October 15, 1914, two months and a half after the beginning of the great war, in which he said that the Kaiser and his agents awaited their Waterloo, and he used for the first time his now celebrated and forcible exclamation: "To hell with the Hohenzollerns and the Hapsburgs!" The editorial is as follows:

#### A TRANSPARENT EXPEDIENT.

The statement sent out by the German Government announcing the discovery in the archives of the Belgian General Staff at Brussels of documents which show that a plan for landing an English force in Belgium had been provided for long before the war, is obviously an invention. The statement is put forth to bolster the German contention that the Allies did not intend to respect Belgian neutrality; that Belgian neutrality practically did not exist, and that the Belgian Government was conspiring with the Allies against Germany. All these are lies out of the whole cloth, characteristic not only of the Militarist System and Method at Berlin, but of the pro-German propaganda in the United States.

Henceforward let him be called The Accursed Kaiser—Wilhelm the Damned—who, like the Devil and Bonaparte before him, will live immortal as the Father of Lies and Lying, his agents in the field and in the counsel of the same murderous and bloody kidney.

Let them enjoy whilst they may the riot of vandalism—the orgy of butchery—the dance of death, they have imposed upon Europe, but especially upon the little brave land of the Belgians even whose good name they would assassinate; but their doom is before them; they await their Waterloo; when the world will ring around the universe. "To hell with the Hohenzollerns and the Hapsburgs!"

As we consider these views in the illumination of more than four years of hostilities, with the United States now for a year and a half also engaged in the titanic struggle for world liberty, we must be struck by their clarity. They were expressed only 75 days after Austria started the bull rolling, but the old editorial war-horse, whose brain conceived them, understood with accuracy the real purpose of the German Government and its utter worthlessness as to morality. He saw also the lying propaganda here in our midst when only a very few others even surmised that there could be such a campaign of falsehood and crime as German agents pursued, and he denounced them with all the old-time vigor of his pen.

#### AN OMISSION.

A War Information Series No. 20, the University of North Carolina has issued a syllabus for the War Issues Course of the University on the Historical and Economic Background of the War. The course for the Students' Army Training Corps at the University calls for a minimum of twenty lectures. In the outline the selections were made, it is stated, "to the end that the student should be directed to information and interpretation on which to found a body of enlightened opinion about the fundamental causes and the most important issues of the present war."

A somewhat wide list of reference and suggested readings is offered in connection with the syllabus. To further broaden "information and interpretation" on which to base an "enlightened opinion about the fundamental causes and the most important issues of the war," it might be suggested that many of the war pamphlets and special articles of the MANUFACTURERS RECORD extending back to the very outbreak of the war might with advantage have been included in the list of suggested readings, but not one of them is mentioned by a university which is supposed to stand for Southern progress.

#### IS CHANGE OF MIND COMING?

"WHAT Germany refers to when it says that it will not accept a 'humiliating peace' is that it won't pay the bill. It will change its mind before the Yankees get through with it."—The Rochester Herald.

Not if many people in this country can have their way, for they are determined that Germany shall not be humiliated nor made to surrender, and that plan has some very strong backing.

## SHALL WE DUPLICATE IN AMERICA THE WORLD MENACE OF THE EDUCATIONAL SYSTEM OF GERMANY?

IN a recent issue discussing the educational system of Germany, the MANUFACTURERS RECORD quoted Rev. W. J. McGlothlin, a professor of history, and a graduate of the University of Berlin, as saying:

"The German school system is, in my opinion, the greatest single menace in the wide world today. It is impossible to see how the German mind can be changed as long as the school system remains what it is."

In further elaboration of the subject Dr. McGlothlin said:

"Here is the point where the world's peace has been wrecked, and it would seem almost impossible to build it up until the German mind is changed. The German schools have succeeded in making the most egoistic, provincial, truculent and ruthless mind that the modern world has to show. Glorification of the State has become an obsession, a cult, a religion. The highest pretensions and the most loathsome actions of the Government have been justified, and even glorified in lecture-room and pulpit throughout the land. The world is face to face with the frightful fact that in Germany there are 80,000,000 of people whose minds are constantly formed by a school system that monopolizes education and is absolutely under the control of the ruthless ruling classes. Mankind faces no more sinister and menacing fact than this as it looks into the future. How can the world be safe for democracy or anything else as long as the German educational system remains what it is now?"

We have seen in the complete destruction of the moral fiber of the German nation the outcome of the German school system—a system absolutely dominated by the Government and whose teachers must teach the things for which the Government stands. Notwithstanding this experience, Senator Smith of Georgia has introduced a bill for the creation of a Department of Education by the National Government with an appropriation of \$100,000,000 annually for the purpose of developing the educational system of America. It is proposed in this bill that this Department of Education shall work in co-operation with the States and that allotments of funds shall be made to the States.

It is needless to say that if such a bill should be passed we would have written into the law of the land the doom of this nation. Any system of education absolutely dominated from Washington, as this would be, could control every public school in the country, for officers and school teachers would inevitably look to Washington for instructions as to what to teach and how to teach it. Already the Commissioner of Education is a menace to the country. It is not alone that the present incumbent is wholly unfitted for the job; not alone that Dr. Claxton is an aggressive fighter against the elimination of the German language from American schools, and that by virtue of his position he has a tremendous power over the educational thought of the country. The veriest humbug might occupy the office and yet his power be great by reason of the office. We have in the incumbency of Dr. Claxton proof of the fact that men wholly unfitted for such a great responsibility may hold that office.

Imagine for one moment what would be the condition with a Department of Education with \$100,000,000 annually at its command in shaping the entire educational life of the country. We would soon have a national system of education which would inevitably, despite all the protests that may be made to the contrary, lead to the domination of education by the Government, matching that of the German Government of the entire educational system of Germany; and through the influence of such an organization broad, wise education would cease to exist, and we would have only that education which was formulated from Washington.

It matters not what party might be in power; it matters not how good and great might be some one man temporarily at the head of this organization, the ultimate outcome would be disaster. The monopolistic absorption of education by the national

Government would be disastrous to diversity of thought and of education.

No appeal for more general education, no appeal for particular interests or a particular line of education, no statement as to the lack of educational facilities at this place or that place, should for one moment have any effect in causing the country to look with favor upon such a bill. The school system of Germany has wrecked that nation in its morality, in honesty and integrity, and as a result of the school system we have had the great world war with all of its horrors, for had the German Government not controlled the schools of Germany, we do not believe it would have been possible to so completely dominate the mind of the people as to have caused the entire nation to sell its soul to the devil.

America should beware of following Germany's example, and Senator Smith's bill should never again see the light of day.

## "GOD AND THE GREAT WAR."

WRITING to the MANUFACTURERS RECORD, Mr. L. E. Morgan, a business man of Dothan, Ala., sends a copy of an article written by him for the Christian Observer, entitled "God and the Great War." In his letter Mr. Morgan says: "I suppose there are a great many people who might not agree with me. I have been trying for four years to get the German viewpoint, or, rather, to understand what I might call the German phenomena. I was to a certain extent familiar with German history, and I sought at first for an explanation along the lines of ancestral training and heredity combined with commercialism. Then, alternately, I sought for an explanation on the grounds of the pathological and metaphysical, passing by, of course, such things as patriotism, loyalty, racial problems, etc., as these were obviously second causes.

"Finally, however, the conduct of the Germans was so unusual, so inhuman and totally unlike anything human I had to hunt elsewhere for an explanation that would satisfy my mind, and I cannot find it anywhere except that it is the result of actual demoniacal possession."

In the course of his article in the Christian Observer, in elaborating this point and in taking the ground that this is a great fight between spiritual forces, between the power of right and the power of evil, Mr. Morgan says:

"In connection with the national day of prayer recently observed in the United States, I noticed a cartoon on the front page of one of our great dailies, showing Uncle Sam on his knees, with clasped hands, in prayer.

"This is as it should be. A nation so obviously born in the Providence of God, and so plainly guided and directed by Him during its entire subsequent history, should, in its greatest hour of national peril, turn to Him for help and succor. At last we are putting first things first. Carried away with the ardor of preparations and preparedness, we have adopted various national slogans, such as 'Food Will Win the War,' 'Ships Will Win the War,' 'Aeroplane Will Win the War,' etc., until at last we are beginning to realize that there is something of far greater importance than ships, aeroplanes, food, munitions and men, important and necessary as these are, and that our national slogan should be 'Trust in God Will Win the War.'

"As we study human history we readily see how many of the important battles of history-making wars have been decided by providential events, usually weather conditions. It was so in the battle of Creecy, and also of Hastings, and also in the deciding battle between Gustavus and Wallenstein, which saved Europe to Protestantism. A terrific storm destroyed the great Armada and saved England. Two heavy rains just at a critical moment saved General Greene from Cornwallis, and but for this the American Revolution would probably have failed. A heavy rain the night before Waterloo prevented Napoleon from moving his artillery until too late the next morning, and in more recent history it is a well-known fact that weather conditions were a potent factor in the battle of the Marne and success of the Allies. We can thus see God intervening in human affairs at critical periods, using the forces of nature as influencing and deciding factors—a thick mist, a heavy fog, storms, rains and mud—these things have repeatedly changed and shaped human history. 'God is on the side of the heaviest artillery,' said the Corsican, but only a short time after God's little snow flakes, beating down upon him and his doomed battalions, sent him down to failure and defeat.

"Important as is the need of material preparation, it is of infinitely greater importance that our nation realize the true significance of this world war—that it is no ordinary war and we search human history in vain for a precedent. A great nation has apostatized and lapsed into barbarism—a barbarism so cruel, so ruthless, so dehumanized, accompanied by such strange

and startling phenomena, that we can no longer attribute it to peculiar hallucinations working out along metaphysical and pathological lines, but rather to something far more dreadful and appalling—demoniacal possession. This, and this alone, can explain the cruelty, inhumanity and fiendish conduct of the Germans during the past four years.

"Today Satan seems to be manifesting his power and actual presence as never before in human history. We know that during the past four years Germany has been repeatedly saved from defeat through the work of the German laboratories, and we have given the German electro-chemists credit for this. But has it occurred to us that there was a far greater intelligence at work far more than these chemists? We have seen the German General Staff meet crisis after crisis successfully with military action of marvelous and paralyzing ingenuity, but has it occurred to us that behind the figures of Hindenburg and Ludendorff has been silhouetted the dark and sinister figure of another and far greater military genius—the dread personality of the Prince of Evil? This view will explain much that has heretofore seemed strange and inexplicable.

"We can thus understand that the present world conflict is really one between unseen spiritual forces, and to meet such a strange and unprecedented situation, what will avail our material preparations unless with these goes trust and dependence upon God? The battle raging in Europe is but the reflection of the one of far greater magnitude which we cannot see, and the final result here will be decided, not by men, munitions and money, but by the intervention of Almighty God. In this connection it is encouraging to see how so many of the great naval and military leaders of Great Britain and America are calling attention to this.

"A great nation, fallen to the uttermost depths of degradation, infamy, and fiendish in its devil-possession, is being personally guided and directed by Satan, and this is the antagonist we have confronting us today. Are we, apart from God, equal to such a conflict? Consider: such a being, unless restrained by God, could place weapons in the hands of his willing slaves that would end the war in their favor, almost instantly. This may seem to some fanciful, but as sure as we live the veil is being withdrawn and the devil is in charge of the German nation today, and there is something in their entire line of action that reveals satanic possession. The ultimate result of this conflict, however, cannot be in doubt, because God reigns.

"This we know. This is His world, and He has neither surrendered His authority nor abdicated His Throne. If we today could see as Isaiah saw, we would see a 'Throne high and lifted up,' and neither earth nor hell can shake that Throne. All the events of this war are under His full and absolute control, and neither Satan nor his emissaries can break through that control. What the American people should do now is to call upon God as never before, asking His blessing upon the efforts we are making. The day of prayer should become the habitual attitude of mind and heart on the part of our people, and in thus coming to God, humiliation and confession of sin should occupy a large place in our prayers, because we, as a people, have been guilty of very many great sins. Sins of avarice, intemperance, immorality, graft, materialism, Sabbath desecration, profanity, which things we should abandon, repent of and seek forgiveness for.

"All 'win-the-war' methods will be vain without Him. We should have a definite, concerted and organized plan for awakening our people as to this, until it will be at the masthead of every newspaper, on the letterheads of every business man, and in the minds and hearts of all our military leaders. Surely it is necessary, because in a very real sense we are wrestling, not only against flesh and blood, but against 'principalities, against powers, against the world rulers of this darkness,' and as along with the whole-hearted military preparations we are making, we humble ourselves in contrite and trustful prayer before Him, we can beseech Him to release those supernatural forces which can speedily bring victory."

## "GONE WEST."

"GONE West! Over the purple hills and beyond the softly glowing rim of life's day the warrior's spirit takes its flight! Out of the morning, across the white archway of noon-tide, down to the sunset! Out of the din and clamor, out of the bitterness and strife, out of the fierce passion of the combat, into the dreamless silence whose shadows mark the pathway to the stars! Beyond earth's darkening horizon, through the curtained gloom of night, far upon the shoreless sea of fadeless light! Out of the agony of life's Gethsemane, over the quaking summits of Calvary, into the realm of glory, where God's banners never furl, where victory is sure! So the stainless knight of a stainless cause moves down the west, where earth's last glimmer fades and dies, and into God's spreading dawn, whose light is eternal, whose breath is cool and sweet. Gone West!"—The Houston Post.

What a superb tribute to the "saviors of civilization" as they offer their lives upon the cross which stretches over a thousand miles of battle line in Europe that others may be saved from eternal damnation under German domination.

"Well done, thou good and faithful servant; enter thou into the joy of thy Lord."



## SOME WONDERFUL MESSAGES TO AMERICA IN THIS ISSUE.

THERE are two or three remarkable articles in this week's issue. They are of outstanding importance. One is a letter from Dr. Virgin, a Baptist minister now working in the Y. M. C. A. in France, a man of the highest standing, and a man of consecrated life. He tells of some of the atrocities which have come under his own eyesight, and he calls in clarion tones to the nation for adequate punishment of Germany.

Another letter, similar in tone and equally as vigorous, is from Rev. Dr. Bennett, an Episcopal minister of Memphis. Dr. Bennett's presentation is of commanding power. These letters should be read side by side by the people of the whole country. Then, what shall be said of that marvelous call to the motherhood of America in the letter by Mrs. Starr, which appears on our cover-page? Who can read it without finding his eyes filling with tears? Who can read it without a quickening of his heart as deep down into his soul comes a real sense of the voice of motherhood? It is a wonderful message. It comes with tremendous power at this crucial moment.

We trust that our readers will take these articles and spread them broadcast, get their local papers to republish them, or reprint them in any form desired, and thus give the utmost co-operation to the moral forces and to the motherhood of this nation in arousing the country to the supreme need of demanding "Unconditional Surrender" on the part of Germany.

Let the cry of Mrs. Starr, who speaks not only for her four sons in the service, but for all of the motherhood of America as she says, "On to Berlin!" be the cry of the motherhood and the fatherhood of America. That is the message which should go into every home in this country. It is a message from motherhood to motherhood.

The letters from Dr. Virgin and Dr. Bennett and others published in connection therewith are of tremendous importance in showing why the demand of Mrs. Starr, that the soldiers shall not be stopped this side of Berlin, should be granted. These ministers point out with exceeding clearness that peace without punishment would be a crime against humanity, and there is no punishment which can be inflicted upon Germany adequate to the situation unless the armies of America and our Allies march straight through Germany to Berlin and Vienna, and then let the people of Germany know that they have indeed been conquered. If this be not done we shall prove false not only to those who sleep "In Flanders Fields," but false to all the ages to come.

If Germany be not invaded its people will never understand the reality of the war. They will never believe that they have been really overcome, and within a very short time German historians and German teachers would be writing into their histories and into their school books that America and the Allies made a compromise peace rather than to undertake an invasion of Germany. It would be but a brief while before all Germany believed that America and the Allies had, in effect, been defeated, and before this generation had passed away Germany would be asserting, through its schools and universities that Germany had conquered America and the Allies, and that Germany must prepare to conquer the world.

War to the finish is the only hope for world salvation from German damnation, and the time for this is now.

On to Berlin and Death to Germanism! must be the universal cry, regardless of every effort in Washington and of every pro-German in this and every other country, and of every German-controlled Socialist who seeks to bring about "peace without humiliation to Germany."

## TO THE MOTHERS OF OUR SOLDIERS.

Sad and weary mothers, women past your prime,  
Plants whose bloom is withered, touched with silver rime,  
Who have seen your little sons grow to stalwart men,  
And can never hold a baby in your arms again—  
How shall you be comforted when they say goodbye,  
All of them to suffer and some of them to die?  
Once there was a mother of a Son that died:  
Blessed among women though she saw him crucified,  
Here had been the sorrow, His the shameful death,  
Had He stayed at home with Her 'n quiet Nazareth.  
—New York Sun.

## GERMANY INSULTS PRESIDENT WILSON.

MAJ. H. C. EMERY, who has recently been released from Germany, in a dispatch cabled to American papers says:

"The German people have turned to President Wilson in the belief that he is the one great political leader who can be trusted to make a permanent peace which shall permit equal economic development. This public attitude came soon after the President's first note.

His second note came just before I left Germany. It did not cause the people to doubt the President's sincerity, but there were misgivings concerning his power to carry out his principles.

The people are in a state of humility. They are willing to withdraw from France and Belgium, to give up Alsace-Lorraine, to pay indemnity to Belgium and to admit that they have been wrong; but they wish to be sure that no Allied troops enter Germany. They frankly admit that they do not want their cities to suffer what they made the French cities suffer."

And so the nation of murderers and looters now look to President Wilson to protect them in securing "equal economic development," and they are even willing to pay something to Belgium, provided no Allied troops be allowed to enter the sacred country! The fact that Germany looks to President Wilson to secure them "equal economic development" and to keep Allied troops from entering Germany is an insult to him, which he should vigorously resent. Is it, indeed, true that this nation of murderers looks to President Wilson to save their country from invasion, and, if so, why?

Considerable mystery attaches to Mr. Emery's release from Germany, but it apparently comes just in time to let him send the "No-need-for-Germany-to-Surrender" telegram to the New York World, a telegram apparently designed to create a mawkish, neurotic sentiment for Germany. On this the New York Herald, under the heading "In Fear of Their Own Medicine," says:

"If evidence were lacking to show the need for that, it is furnished by the World. An article furnished that newspaper by a professional financier recently released from imprisonment in Germany is illuminating, even if the circumstances surrounding his incarceration and subsequent release remain a good deal of a mystery. There is something suspiciously coincidental in the writer's having been permitted to examine into Germany's internal situation and his being released just at this time to send to this country what purports to be the situation there as viewed by unnamed 'liberal leaders.' It is a tale of surface democratization. What most attracts in it is the writer's assertion that the German people are in a state of humility; that they are willing to make all sorts of concessions, including admission that they have done wrong, 'but they wish to be sure that no allied troops enter Germany. They frankly admit that they do not want their cities to suffer what they made the French cities suffer.' And on that there is hung—attributed to so-called liberal leaders, to be sure—the contention that a growing German democracy should not be jeopardized by invasion of German territory!

"If the American people were at all concerned over the birth of a German democracy they would have mighty little faith in the stability of a democratic movement that, confessedly, has no other basis than fear. What red-blooded Americans will see in this admission is need for all the greater insistence upon their demand, which is confined to no one political party—On to Berlin!

"We have just begun to fight!"

## THE BATTLEFIELD MUST BE THE PEACE TABLE.

THE fraternal organizations of Washington county, Pennsylvania, are sending out, through Jas. P. Eagleson, director for that county, a poster headed "Fraternity." Brothers may this be our slogan: "Peace through Unconditional Surrender."

Under this heading there is an extract from the MANUFACTURERS RECORD against any peace with uncrushed, unrepentant Germany until Heaven offers peace with unrepentant Hell, and a striking statement from Will Irwin, the well-known writer, who outlines the case with absolute accuracy as to the only peace discussion that should take place. It is as follows:

"Let the peace table be the battlefield and the terms be pinned there by the bayonets of the Allies. If Germany wants peace let von Hindenburg present his sword, lift first, to Marshal Ferdinand Foch. That will be a peace note which will amount to something and will save much paper and literary composition.

"In the West when the sheriff gets the local bad man in a corner, his hands over his head, it's good form to say, 'You stand there, pardner, I'll do the talking.'

"The Allies will know perfectly well how to frame a peace note when the time comes."

## LET THE PUBLIC HAVE THE FACTS, MR. PRESIDENT!

IN President Wilson's recent letter to Germany he said that he had "received the explicit promise from the present German Government that the humane rules of civilized warfare will be observed on land and sea by the German armed forces."

Nothing which has been published as coming from the German Government confirms that statement, and nothing done by the German army since then indicates that the German Government had the slightest intention of doing what President Wilson says it has explicitly promised.

President Wilson owes it to the country to make public any private assurance which he has received from the German Government such as that referred to in his statement. If he has any specific statement to that effect then its official publication at the present time would show that the German Government is still composed of liars who will not keep any promise they make, for atrocities still continue.

It is scarcely conceivable that President Wilson would have made that statement without having the facts on which to base it, but he has given the public no information on the subject. Justice to the people of this country and to the people of the world suggests the propriety of his giving to the public the facts on which he based the statement. This country cannot afford to be kept in ignorance. Mr. Wilson has vigorously criticized "secret diplomacy," but he has here made a statement about which the public has no information whatever, and the public has a right to ask him to give the exact facts in regard to the "explicit promise" he has received from the German Government that atrocities should be discontinued.

## HAVE YOU BY YOUR ACTS THUS SPOKEN TO THE SOLDIER?

COMMENTING upon the disposition of some people to withhold subscriptions to the Liberty loan or to buy only enough to be able to say that they have bought bonds when they are really able to buy to a much larger extent, the Evening Sun of Paducah, Ky., says that, laying aside diplomatic language, "every man who is guilty of a trick like that is guilty of murder."

The slacker in the purchase of Liberty bonds who seeks to hide behind an investment far less than his means justify is acting the part of a murderer—not one which the law may seek out and punish, but nevertheless he is guilty of "silent and invisible assassination."

Referring to such people, the Sun says:

"The higher appeal of patriotism and consecration to the salvation of a suffering world is probably wasted on that sort of being, but perhaps he can appreciate the simpler analogies.

"If the wife he loved was being assaulted he would protect her, we suppose.

"If the mother that bore him was being crucified, he would, we imagine, go to her assistance.

"If the children that he brought into the world were in the red hands of a murderer he would strike in their defense.

"If a vandal approached his home with firebrands, he would at least try to knock him down.

"The wives, the mothers, the children of all civilization are in the grasp of the beast today, and there stands between his bloody paw and the dear ones of America but one thing—that glorious line of soldiers, who from the Belgian coast to the frontier of Switzerland are protecting the world from the lust of the Hun.

"Men are twisting in agony on the ground that the foul talons of the Kaiserbund may never reach the white throat of American womanhood, that American life and property may be protected from the murderer and despoiler.

"Men are enduring worse than Hell that the red terror may never reach these shores.

"And the slacker, who, here at home, keeps in his pocket the money this country has made it possible for him to possess, openly confesses that he is WILLING—yes and GLAD—that other men shall lay down their lives in defense of HIM and of HIS loved ones—AND HE WILL NOT LIFT A FINGER TO HELP.

"The comparison is not overdone. There is nothing illogical in the accusation. There is no other conclusion to be drawn. To be thoroughly consistent the bond slacker needs only to say to every soldier who sails from these shores: 'GET KILLED—DAMN YOU—YOU'LL GET NO HELP FROM ME.'

These are bitter, burning words, but they are none too strong.



## OBSOLETE.

**BE Neutral in Thought.  
Too Proud to Fight.  
Peace Without Victory.  
Politics Adjourned Until After the War.**

These are now recognized as all "scrap-heaped," but they prove that President Wilson could make tremendous mistakes. We venture to predict that of all his mistakes which he will most deeply repent of is his fearful blunder of insulting the patriotism of one-half the country.

No patriot, no lover of mankind, could do other than mourn that the President of the United States should thus step down from his high estate—but every pro-German in America will hurrah for this blunder and will vote as he suggests. Mr. Wilson, the nation did not believe it of you!

## ON TO BERLIN!

### WAR AS SEEN BY SOLDIERS AND THEIR VIEWS AS TO AN UNPUNISHED GERMANY.

AS a general thing, soldiers are not allowed to express their opinions on war questions because of military discipline, and, therefore, while we, as a rule, avoid publishing anonymous communications, we have two, one from an officer in America and one from a soldier in France, expressing their views on this situation which deserve to be made exceptions.

Judge Walter F. McCoy of the Supreme Court of the District of Columbia, in a letter to the MANUFACTURERS RECORD, says:

"I am in receipt of a letter from an officer in one of the big camps, which reads in part as follows:

"I admit I am a rabid anti-peace advocate. I am of the opinion that the Hun is jockeying for any sort of ending to save their generals and high command from an overwhelming defeat and utter annihilation. To this end I pledge my all and would gladly lay down my life. These are the sentiments of nearly every officer of my command."

Another letter comes to us from the vice-president of one of the greatest manufacturing enterprises in America containing a letter from one of his German acquaintances who was intensely pro-German at the beginning of the war, but who enlisted in the 7th Regiment of New York and is now in France. He was born in Germany of German parents and was intensely pro-German from infancy. He is a friend of the vice-president to whom we have referred, and the name cannot be given because to divulge his name would be embarrassing to his mother. He is now brought face to face with the conditions as seen on the battlefield, and here is an extract from a letter dated September 27 to his mother in New York:

**Extract from letter dated September 27 from a former pro-German, now in France, to his mother in New York:**

"I do hope, mother, dear, that you have no more sympathy left for any part of Germany or Germans. I appreciate the position you are in, but I've learned to hate them with all my heart. You who have not seen what I have seen (especially in the last few days) cannot understand what low cowardly hounds the military men of Germany are, with exceptions, of course. This is some of their military work: the English, in picking up dead bodies of German soldiers, to give them a decent burial, were often blown to pieces, as the body had been wired to some high explosive, and as soon as it was moved it exploded. I could write hundreds of other reasons why a white man should hate them, but it's all too rotten to write about. If they were only brave soldiers on the field of battle one might overlook things, but, as soon as they see that they are losing, up go their hands and they surrender.

"I have to laugh when I think of what Henry once said, something to the effect that when the know-nothing American soldiers ran up against some big Prussian guards, what an awful joke it would be! Well, it was, and the Yanks haven't stopped laughing yet."

And yet some people in this country have been seeking to create the impression that the German people are different from the German Government!

### HOW GERMANY IS PREPARING FOR AFTER-WAR SHIPPING AND TRADE.

THE Liverpool Journal of Commerce recently published an article from the Vorwaerts of Berlin in which the latter discussed the prospective activity in shipbuilding operations in Germany after the war. What the Berlin papers said on this subject only indicates the spirit which prevails in Germany looking to great industrial activity when the war is over, and for which Germany has been planning during the last two or three years while vigorously carrying on its cursed war. Vorwaerts looks forward to a period of great shipbuilding activity, and in the course of a discussion of the whole subject says:

"In strong contrast is the position of the shipbuilding industry, which is sure of a five or six years' boom after peace is declared, in addition to the throng for war orders, which at present keep all yards working day and night. There is little competition either for current naval orders or for post bellum merchant ship construction. Yards that before the war paid no dividends at all, or at most 1 per cent., are now writing off huge sums, and distributing in addition dividends as high as 20 per cent.

"By the side of the 22 old yards 14 new ones have sprung up and a further six or seven are planned. Of these last the most important are the Deutsche Werft A.-G., the Imperial Motorenwerke A.-G., the Neue Tritonwerke, and a giant new shipbuilding company connected with a large Rhenish steel plant and machine works, and controlled by Rickmers interests. The Deutsche Werft A.-G. is to have a capital of £500,000 supplied by the Hamburg-Amerika Line, the A. E. G., and the Gutehoffnungshütte A.-G., of Oberhausen, a Haniel concern.

"The city of Hamburg has leased to the company, for a period of 75 years, land for the erection of yards on the Elbe Island of Fierckenwarden. The company will devote special attention to the building of ships driven by crude oil motors. The Imperator works, for the building of marine motors, are also a creation of the H. A. L. and the A. E. G., this time in collaboration with Stinnes interests. The Triton works, at Luebeck, with a temporary capital of £50,000, have already purchased land from the city for the erection of yards and auxiliary buildings. The Rickmers Company will have its headquarters outside Hamburg, and will begin operations with the building of 12 fast ore-carrying steamers. The affiliated steel and machine factories will supply all requisite plates and machinery."

We may rest assured that Germany will promptly come to the front immediately after the war is over with all the energy of its people toward the building up of a foreign commerce and the unloading on America and other countries of its "made in hell" products, at a price based on low rates of wages in Germany, which would destroy many industries in this country if we should be so bereft of all reason as to permit these importations of "Made in Germany" or "Made in Hell" products.

We cannot afford to permit Germany to flood this market with its products, for Germany will be just as ruthless in trying to destroy the industries of America as it was ruthless in destroying women and cathedrals. Germany halts at no crime in commerce and industry, or in war. It counts upon commerce for the upbuilding of its wealth to regain its war losses. A nation of liars and hypocrites and looters, it is still unconquered, and we shall have to meet the competition of men who know not honor and know not truth, unless we safeguard our country from the importations of "German made," or rather "Hell made" stuff.

An English firm in pointing out why English houses should be preparing to meet after-war conditions says:

"In the year before the war Germany sold goods to the value of £167,000,000 to the British Empire.

"A large part of that money was used to purchase war material with which to wage a war of destruction against the British Empire—and against British trade. Now is the time to complete plans for diverting Germany's pre-war trade with the British markets into British channels.

"This is a war which has for one of its main German objects the defeat of British trade in the overseas dominions, and to secure that end Germany has accumulated vast stocks of goods which she will throw on the world's markets immediately peace is declared.

"As soon as this war is over the trade war will begin—a bitter struggle for commercial supremacy, in which it will be the German aim to strike first and hard, to secure such a firm footing in overseas territory that a supreme effort will be necessary to dislodge her.

"Never for a minute, either in advance or retreat, does Germany lose sight of the after-the-war trade

problems. Even in defeat her destruction of French towns is deliberate and designed for economic ends. She seeks to disable industrial competition, and so, as she goes back to the Rhine, she steals from the French industrial centres valuable machinery, furniture, materials and raw material.

"There is a great deal more method in Germany's systematic schemes of destruction than is suspected in some high quarters. It is the German aim to weaken the Allies economically—to strengthen her own forces for the big trade war which she knows is coming.

"Germany is calculating on finding us as lethargic as slow of movement, as unprepared as we were in 1914. To completely upset her calculations we must organize for industrial victory now—must formulate our plans to secure Empire trade now—must act with vigor, determination and common sense—now."

It is even more important for America to prepare against this flood of German goods than it is for England. We must strengthen and safeguard our economic forces and make certain that we shall never again let Germany dominate our markets.

### SHALL CIVILIZATION BE SAVED?

"OCTOBER must witness a general German retirement, and then comes the most dangerous time for the world, the German struggle for peace."

That statement was written in September last in Switzerland by Mr. C. W. Barron of the Wall Street Journal, who has been in Europe for some time making a study of conditions over there. It was published in the MANUFACTURERS RECORD last week in connection with other statements made by Mr. Barron, all of which deserve a rereading and a re-emphasizing in order that we may rightly grasp what is taking place in Europe.

The things that Mr. Barron predicted in September have come true. The German armies are retiring as he said they would do in October, and the great fight of Germany to secure peace without punishment is under way in October, just as he said it would be. Today it is literally true that with October and with these peace moves "has come the most dangerous time for the world, the German struggle for peace."

It is impossible to exaggerate the danger of the hour. Never was there an hour in human history when greater care was needed in order to make certain that criminals would be punished and that the civilization of the future would be saved.

### GERMANY'S WAR BONDS.

A DISPATCH from Switzerland says that the Germans are trying to unload their war bonds, and that there is some question among Germans as to the Ninth German War Loan "being a safe investment."

We think it quite probable that they heard in Germany sometime ago the suggestion first made by the MANUFACTURERS RECORD that all war bonds issued by Germany and its allies should be confiscated and applied as a partial payment toward the indemnity which America and our Allies should place upon Germany, or that if this be not done, Germany be forced to repudiate all its war bonds in order to meet the indemnity to the Allies. In other words, no German who has invested in these bonds, whether he be banker or peasant, should ever be permitted to collect one dollar of them.

These bonds were gleefully and joyously taken by the people, who felt that they were out on a great marauding expedition for looting the world, and they joyously bought the bonds which enabled their murderous representatives to go out on a campaign of killing. The only way to reach these people is by financial punishment. While the leaders should be hung, the people at large cannot thus be treated; but if they can be deprived of every dollar of bonds which they took for the purpose of carrying on the war, all classes, from the great banker to the peasant, will have to bear a fair share of the burden, and thus will learn something of the meaning of war.

It is not surprising, therefore, that as the knowledge seeps into Germany that these bonds will be of no value to German holders of them that they are eager to get rid of them, but nobody wants to buy them at any price.

## RUSSIA UNDER GERMAN DOMINATION.

GERMANY is hoping to retain its hold on Russia and to exploit that great country, which has more than one-sixth of the land area of the world and a population of nearly 200,000,000. If Germany can keep its hold on Russia it could well afford to withdraw from Belgium and France and to pay billions of dollars in indemnities and still win a great victory by dominating Russia. Once freed from the menace of the invasion of its own country and the destruction of its military power, Germany could pay practically any price for peace, provided it can dominate in Russia. There is no safety for the world except in the destruction of Germanism. While the newspapers do not give much information in regard to the treaties made between Germany and Russia, the Cologne Gazette was recently quoted by the London Times as throwing some light on the subject. The facts should be studied in America. The Times said:

"Nor are the newspapers allowed to explain the economic concessions, which are incidentally mentioned in the treaties, but are not disclosed. It appears, however, from the financial columns of the Cologne Gazette that Germany has forced upon Russia one of her favorite schemes—the organization of Russo-German trade by a specially established Russo-German 'Society for Foreign Trade.' Nominally, Russia is similarly to organize her foreign trade with every individual country, but in reality, of course, the scheme is a concentrated form of German economic penetration. The Cologne Gazette rejoices once more at the arrangement of a special Russian loan for German interests, and writes as follows:

"For Germany and Russia this is the first bond which will link together afresh their economic system when the obligations of the old Russian system have been wiped out. It is like a joke of world-history that the creditors of the Seine, who were once so closely linked up with Russia, have seen their Russian hopes disappear and their whole fabric collapse, while the German enemy gets his whole debt settled and new economic connections established. The gloom of the Paris Bourse is only equalled by the satisfaction with which the German markets welcomed the conclusion of the treaty and the announcement of the details. The new treaty between Germany and Russia confirms the repudiation of the Russian State debt. It is not impossible that compensation negotiations will some day have to take place between the former Allies. But then Russia can put into the account tens of millions for loss of life and property and so will not have to meet her debts."

## WATCH OUT!

BISHOP WM. A. QUAYLE of the Methodist Episcopal Church, writing from St. Louis to the MANUFACTURERS RECORD, referring to a letter recently published by him warning the country against "moral flabbiness" in dealing with the war, says:

"Events since the writing of the articles have justified the fear expressed and implied in it. We need to be very much on our guard lest the Germans in America make the peace rather than the proper authorities on the field."

Bishop Quayle is entirely correct. There is a tremendous danger that the Germans in America and pro-German interests in America will set the peace terms, or bring about conditions which will result in naming the peace terms finally adopted, unless this nation be on its guard.

## "YOURS FOR UNCONDITIONAL SURRENDER."

THE suggestion made in the MANUFACTURERS RECORD last week that every business letter sent out from every business office in the country should be signed "Yours for Unconditional Surrender," has been improved upon by one of our readers in Atlanta who signs his letter "Yours for Unconditional Surrender and adequate punishment." If, however, the latter is too long for the average business letter, we again remind our readers of the importance of putting on every letter

Yours for "Unconditional Surrender."

Let this message go into every home and into every business office in this country, reiterated day after day and in as many ways as possible, by line upon line and precept upon precept, that this

thought may be driven into the hearts of the people of this country.

Another subscriber now signs "Yours for Unconditional Surrender in Berlin."

## FROM BELGIAN'S HEROIC KING.

General Headquarters of the Belgian Army,  
22nd September, 1918.

Cabinet du Roi.

Dear Sir:

I am commanded by His Majesty to acknowledge receipt of your letter of 25th July last and to thank you for so kindly sending the interesting Portfolio of Editorials of the Manufacturers Record, which the King is most pleased to have.

I am,

Yours faithfully,

FR. DE JEHAY,

Chef du Cabinet du Roi a. i.

Richard H. Edmonds, Esq.,  
Editor and General Manager  
Manufacturers Record,  
Baltimore, Md.  
Etats Unis d'Amerique.

## SONG OF VICTORY.

Gone are the long, long nights of dread,

Gone are the days of weeping.

Awake, awake, ye mighty dead!

Wherefore are ye sleeping?

See, fading in the stormy West

The evil fires of warning!

And see!—the Eastern sky is bright

With promise of the morning!

Awake, press on, the hour is nigh,

And Victory your battle cry!

They died for this! Oh, never doubt,

For them the dawn is breaking!

At Victory's triumphant shout

The shattered earth is waking.

O living hearts, be worthy these

Strong hearts in silence sleeping,

And peace will bless the earth again.

And joy be born of weeping.

Look up! The long, long night is gone,

And Victory is leading on!

—ELIZABETH HONEYMAN.

## THE RIGHT SPIRIT.

IN their Liberty Bond advertisement in one of the New York papers, the Mitchell Vance Company, Inc., of that city, used as an advertisement an editorial from a cover-page of the MANUFACTURERS RECORD, and followed it with these statements:

The above editorial represents our attitude, and we believe that of every other true American manufacturer. We wish to assist in its circulation for two reasons:

First—It expresses the loathing we feel for that blood-tainted crew who are demolishing what has taken centuries of human enterprise to build up.

Second—Readers of The World will be stirred by this fearless exposure of facts in which truth appears, naked as the bayonet, and will dig deeper for the Fourth Liberty Loan, as we ourselves have done.

We are distributing this cast figure of "the Kaiser Hooked," a metal-worker's idea of what will happen to the devil's successor when the round-up comes.

This company, employers and employees, not already in the trenches, have mortgaged their earnings and savings for long after the period of the war and are working 14 hours a day to give the Government the service that is required.

Our motto is "Work and Fight and Lend." Talk will not win this war.

The "hooked" figure mentioned in one of these paragraphs is a metal figure of the Kaiser hanging by a rope from the gallows, where he rightly belongs. Following that is the statement that the Mitchell Company and its employees are working 14 hours a day in order to give the Government the service that is required in its great work of winning the war, and that the company and its employees are mortgaging their earnings and savings for a period long after the war, in order to meet demands for subscriptions to the Liberty Loan.

This is the spirit which must prevail throughout this country. Every man must recognize, if he is an honest patriot, that he must work many hours, and that he must contribute to the utmost extent of his ability to the winning of the war through subscriptions to Liberty Loans. Tens of thousands of people have done exactly what the Mitchell Vance people have done, and this spirit must prevail from one end of the country to the other until the final ending of this war and the settlement of the problems connected with it.

## WHAT IS THE MEANING?

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets, and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all."—(The Real Colonel House, an Intimate Biography, by Arthur D. Howden Smith, Page 24).

"Colonel House is so relied on here (Berlin) that he would be doubly welcome as the bird with the olive branch."—"Face to Face With Kaiserism," by James W. Gerard, late Ambassador to Germany, pages 95-96.)

And this is the man who represents President Wilson at the peace conference!

## SHALL WE BE INDEPENDENT OF GERMANY'S POTASH?

Lynchburg, Va., October 23, 1918.

Editor Manufacturers Record:

I have read with considerable interest the various articles in your excellent paper on the potash industry. One of these papers deals with the probable interest of pro-German element endeavoring to discourage the by-product potash industry in this country.

It occurs to me that this is an opportune time for this country to be considering indemnities. Following out our program of insisting that Germany rebuild shattered Belgium and French cities and factories, German gold will be scarce. As a very small part of America's indemnity, why not stipulate that Germany must furnish this country a million tons or more of standard potash?

W. W. TAYLOR,  
Mining and Chemical Engineer.

We do not believe that this country should depend upon Germany for potash, whether purchased of Germany or whether paid as an indemnity. We believe that the United States should make itself absolutely independent of Germany by creating a potash industry in this country, which we are entirely able to do, with proper co-operation of the Government.

## NO HUMAN TONGUE CAN EVER TELL THE STORY.

A DISPATCH from London gives some statements in regard to the financial losses which have been placed upon Belgium by Germany's invasion of that country. Summed up by a Belgium authority, the figures are as follows:

Local contributions and fines levied by Germany on Belgium in 1914, £8,000,000.

War contributions from November, 1914, to October, 1916, £38,400,000.

War contributions, seven months to May, 1917, £14,000,000.

War contributions from May, 1917, to May, 1918, £28,000,000.

War contributions from June to October of the current year, £15,000,000.

Raw materials and machinery taken by the Germans were reckoned by them in January, 1915, at £80,000,000. The damage to December, 1914, estimated by the North German Gazette, amounted to £200,000,000. This makes a grand total of £384,200,000 (\$1,921,000,000).

These items do not include material destruction and requisitions since January, 1915, which alone must be reckoned at several hundred million pounds.

During the winter of 1916 Belgian workmen to the number of 1,750,000 were deported to Germany. The future production of these men was thus totally lost to their country.

The aggregate runs into billions of dollars, but all the billions that Germany can ever pay will never atone for the sufferings and the agony of the people of Belgium. No words that have ever been invented, no speech ever known to human tongue, can begin to tell the story of what Belgium and France have endured.

And shall the nation of criminals who, out on a murdering, looting expedition, has thus brought voiceless woe and sorrow beyond all that the world had ever known upon Belgium and France and other countries be permitted to go free of punishment or to have a peace without humiliation? May God forbid!



## Start "Unconditional Surrender Club" in Your Town

ACT AT ONCE AND BRING TO BEAR UPON THIS GREAT HOUR IN HUMAN HISTORY THE POWER OF MILLIONS COMMITTED TO "UNCONDITIONAL SURRENDER."

The way to start a club is given in the following plan authorized by the original club:

The recommendations of the local commercial organizations, the Rotary Club, Kiwanis Club, the daily newspapers or any group of representative citizens will be acceptable to the National Board for the appointment of a Unit Chairman. He should, however, be a man of unquestioned loyalty to his country, a citizen of high standing who holds the respect of the people of the community in which he lives.

To the Unit Chairman should be left the appointment of a secretary and a treasurer, which completes the local organization required by the constitution, though it is advisable to select an executive committee or advisory board, composed of the leaders in the community's activities, and the principal function of this body, in addition to furthering the work of securing members for the club, should be to combat all pro-German propaganda.

When the organization is completed application should be made immediately to the National Headquarters for a charter.

As there are no dues or fees connected with membership in the club, the Unit's activities may be financed through the sale of buttons bearing the insignia of the club, which may be purchased through the National Headquarters at \$20 per thousand (or less in larger quantities), and which shall be sold only to members at a cost not to exceed five cents each.

Membership pledge cards may be ordered from a local printer or they may be purchased through the National Headquarters at three dollars per thousand, plus express charges, with the address of the local headquarters or secretary printed on the opposite side, convenient for mailing and filing.

The pledge also may be published in coupon form by the local newspapers, the co-operation of which is highly desirable in promoting the expansion of the club.

Weekly reports should be made by the Unit Secretary to the National Secretary, giving tabulated lists of new members on forms supplied by the National Headquarters.

### THE UNCONDITIONAL SURRENDER CLUB

of the United States of America.

National Headquarters, Flint, Mich.

DWIGHT T. STONE,

National President.

MYLES F. BRADLEY,

National Secretary.

### PLEDGE OF MEMBERSHIP IN THE UNCONDITIONAL SURRENDER CLUB.

A National Organization Founded in Flint, Mich., July 27, 1918.

As a member of the UNCONDITIONAL SURRENDER Club of the United States of America,

I pledge my undying fealty to the United States Government;

I pledge my unfailing support to our soldier boys who are fighting the common enemy;

I pledge myself and all that I possess to the cause of winning the war against Germany and her allies if that be necessary;

I pledge myself to make any and whatever sacrifices I may be called upon to make, to the end that the Central Powers may be brought to realize that only an

### UNCONDITIONAL SURRENDER

will be acceptable to me and to my country, the United States of America.

(Signed) \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

Adult ( ) Minor ( )

There are no dues, no initiation fees, no duties except good citizenship and loyalty and patriotism.

Sign this pledge and forward it to National Headquarters U. S. Club, Flint, Mich.

### WE WANT NO GERMAN POTASH.

MR. S. H. GAITSKILL of McIntosh, Fla., in a letter to the MANUFACTURERS RECORD, referring to the question of the possibility of German potash invading American markets, says:

"With reference to your articles on potash, if the Seamen's League stands firm, how will German potash get out of Germany? They have marked already a number of years that no seaman will help sail a ship to or from Germany. I hope and believe the seamen mean all they say, and that will be some punishment for crimes committed, even if peace terms are not what they should be, and we hope for an unconditional surrender verdict."

Even if no British seaman ever sails a ship in which German potash is carried, there are many other ships of other countries whose seamen might not be so ambitious. Moreover, Germany has great many ships in its own ports and is building others ready to enter upon the world trade the moment peace is declared. If we do not forbid the importation of German products, this country will be flooded, for Germany will do its utmost to break down in America every effort to create any industry to compete with things which Germany formerly shipped to us, and we have millions of people in this country who would rejoice in the privilege of buying German stuff.

### WASTE OF PAPER BY GOVERNMENT.

CONSERVATION of paper is greatly to be desired. It is being vigorously enforced upon newspapers, but it is being utterly disregarded by the Government. There is a fearful waste of paper by the various Departments and Bureaus at Washington, which seem to be vying with each other to see which one can send out the largest amount of stuff. Within the last 12 months these Departments have issued a number of new publications, some weekly, some monthly, and they are constantly sending out a vast mass of stuff, nine-tenths of which, we believe, goes promptly into the waste-basket of every newspaper office where it is received. It would be very interesting if the War Industries Board, which is cutting down the use of paper by the press, would make a study of the amount of paper that is being used by the various Departments at Washington as compared with the amount used a few years ago. War conditions, of course, have necessarily brought about a larger demand for information from Washington and some increase would be justified, but much of the stuff that is sent out is worthless and is duplicated and reduplicated until it overloads the desk of practically every editor in America.

### APPRECIATED COMMENDATION.

FROM D. J. Henderson, Jr., president of the Citizens' Bank of Ocilla, Ga., we have a letter in which Mr. Henderson voluntarily sends us a check for two years' subscription from October 5, 1918, to October 5, 1920, and in connection therewith he writes as follows:

"I am enclosing herewith my check for \$13 to cover subscription for two years, from October 5, 1918, to October 5, 1920.

"Your paper comes nearer expressing my views toward the European war and German militarism than any I read. Keep up the good work. I wouldn't do without the paper if your subscription prices were double what they are."

It is needless to say that every message such as this gives heart to the work we are trying to do, and shows that we are laboring not in vain in the effort to awaken our nation to the real meaning of the European war and to the struggle which is ahead of us, before civilization has been made safe and our own country has been saved from the fearful power of German barbarism.

Mr. J. T. Slatter, secretary and traffic manager of the Columbia Chamber of Commerce, Columbia, S. C., writes:

"We have never signed a check which gave us quite so much satisfaction as this one. For by it we are enabled to express in a limited way our entire approval of all you have said about this war and Germany's infamy. We feel that the sentiments, words and conclusions of your editorials have done more good in awakening and stirring to activity the apathetic American than those of any other journal published. We endorse every word you have printed about the terms of peace."

# WHO IS COLONEL HOUSE AND WHAT ARE HIS VIEWS?

[With the tremendous issues at stake it becomes vital to all civilization that our people shall understand as far as may be possible the men who are to sway the destinies of the world within the next few months. Colonel House, the sphinx, the enigma of America, is now in Europe, reported as officially appointed representative of America. Who is he and what has he done to be given such stupendous powers? The following article is an attempt to throw some light upon the subject.—Editor Manufacturers Record.]

By ALBERT PHENIS.

Washington, D. C., October 29.

Colonel House is in Europe again, this time with credentials as "special representative of the United States Government to the European Governments," so dispatches from Paris state. This suggests some interesting questions as to what Colonel House has been empowered to do and whether it is intended that he shall continue to represent the United States, including all matters relating to ultimate peace with Germany, and if so, what, in the light of Colonel House's views, his character and his influence with the Administration, will be the peace terms which are likely to be advanced by him as the terms this Government demands.

What peace terms with Germany will this Government hold out for to the last ditch?

What may we be sure that the official voice of America will demand when finally it comes to the nations to determine the fate of the German rulers and the German people?

Will we stand immovably for punishment according to the criminal code and for reparation and restitution to the utmost limit of physical possibility under the laws of equity and morals, or will we in that most momentous day in profane history be found pleading for a "healing peace" with Germany, a peace "without humiliation" to Germany?

The position we shall take is a question to which not only all Americans, but the people of all nations everywhere are giving profound thought. Friend and foe, citizen and soldier, civilian and official the world over are deeply concerned as to where our Government will stand.

Does anybody question what our soldiers on the battle line think of a peace without punishment? Does anyone believe that the mothers of these soldiers will submit without protest to an inconclusive termination of this war, or that the great body of American manhood at home will accept terms for Germany that leave her as a nation unhumiliated and unscathed?

If the sentiment of the people has been so unmistakably ascertained—as recent vigorous and outspoken expressions through the newspapers, in public speeches and elsewhere would seem to definitely prove—why lingers anywhere the lurking doubt that always and wherever America's voice may be heard the demand of this nation as a nation shall be that justice, inexorable, adequate and complete, shall be meted out to Germany, the arch-criminal of all time?

Does the public fear that over-exalted idealism may soften the will to punish rigorously when once the prisoner is in the dock, or is it feared that there may exist sinister influences among the advisors of the nation's chief?

It is important that this situation be clarified. Our Presidents are elected by the people's votes, and are thus the servants of the public and subservient in the end to what the majority may will. The advisors of the Presidents, particularly if they are men in private life, exercising a power that the people never have had a voice in delegating, are without this check, are a law unto themselves and are thus the proper subjects of jealous watchfulness and care. It is hardly to be wondered at, therefore, that just at this crisis in world affairs and as to America's attitude toward the inevitable ultimate German peace there should be in many quarters a searching inquiry as to what views may be held on world affairs by the advisors to whom President Wilson gives greatest heed.

Who are the chief advisors of the President?

Has it been observed and recorded that they are among the members of the United States Senate, that body which under the Constitution is given co-ordinate power with the President in treaty discussions and the conclusion of peace?

Does any set of men or any individual stand out, distinct and prominent, as the President's adviser with anything approaching the distinctness and prominence that Col. Edward Mandell House of Texas and New York does now and has done from the time that Woodrow Wilson emerged from Princeton as a Presidential possibility?

Wilson's visits to House are accepted as commonplaces by newspaper readers, and it was too much a matter of course to excite more than perfunctory comment that when the answer to the Prince Max German peace note was under consideration "President Wilson returned to Washington accompanied by Col. Edward M. House, his confidential advisor in international matters."—(New York Times, Washington dispatch, October 14.) As if to eliminate from the public mind any possible doubt as to Colonel House's influence on President Wilson's decisions, a recent biographer has emphasized the point again and again in terms such as these:

## House the President's Chief Counsellor.

"He is the President's principal counsellor, probably the only man upon whose advice Woodrow Wilson leans with implicit trust." ("The Real Colonel House, an Intimate Biography, by Arthur D. Howden Smith, Geo. H. Doran Company, publishers, New York, 1918, page 36.)

"He holds a power never wielded before in this country by any man out of office, a power greater than that of any political boss or cabinet member. He occupies a place in connection with the Administration which is anomalous, because no such place ever existed before Woodrow Wilson became President of the United States." (Ibid., page 14.)

"Until President Wilson writes his autobiography we shall not know the extent of the influence House has had upon the President's policies. Colonel

House will never breathe a word to indicate it, but there is ample excuse for assigning him credit as chief adviser in the formulation of all of the President's important decisions." (Ibid., pages 15-16.)

Smith's book on House first appeared in serial form in the New York Evening Post, on which newspaper Mr. Smith was employed as a writer. Some slight changes in the text have been made in the book, indicating careful revision. An author's note announces a long acquaintance and friendship with Colonel House. No repudiation of the statements in the book have ever been made on behalf of Colonel House or President Wilson, and it is assumed that the book, therefore, has at least the tacit approval of Colonel House and the President.

In this highly laudatory book of 303 pages the personal history of House and his political and diplomatic activities are related in detail. His work in behalf of Governor Wilson's nomination for the Presidency in 1912 and the close friendship that immediately ensued on the first meeting of the two is fully described. House's large part in the formation of the first cabinet is revealed, and then:

"It is an open secret that Colonel House's role in the Administration at first was that of political next-of-kin to Mr. Wilson, an all-around counsellor and conciliator. His wits fairly itched to get at the international problems, which were the most interesting phase of governmental work to him." (Page 140.)

Smith's book discloses that the President and Colonel House perceived the coming world war in 1913 (page 150), and "the preliminary signs of the most horrible catastrophe in the world's history were to be seen." (Page 153.)

And yet even then, and until "the very morning that the United States was dragged into war (page 151) every activity of the Administration is stated to have been against preparedness on the part of this country and to induce the Entente Allies to make peace on "reasonable terms," a "just peace." (Page 235.)

"Until April, 1917, as Colonel House puts it, the President was scrupulous to do nothing which could be interpreted by either side as indicating an intention to abandon neutrality. [It was for this reason that he refused resolutely to make advance military preparations, although many of his advisers urged him to take some steps to put the army on a war footing. He thought that if he did anything like this it might be interpreted in Germany as a threat of aggression and would tend to undermine the German belief in the disinterestedness of this country's stand.]"—Evening Post, April 13, 1918, somewhat changed in the book, page 226.

Since the first Presidential nomination of Mr. Wilson, Colonel House has made four trips to Europe, outside the present "mission." On three previous occasions he has gone as personal representative of the President, or "super-ambassador," as called in Smith's book. His talks with potentates and powers are fully outlined in this book of Smith's, and his efforts in behalf of a negotiated peace are fully set forth.

"Never in history has any foreigner come to Europe and found greater acceptance or wielded more power," says his biographer. "Behind this super-ambassador, whose authority and activities are unique, stands the President." (Page 252.)

"The President is just as determined to secure justice for Germany as he is for Belgium." (Page 268.)

"Some day, perhaps, Colonel House's lips will be unsealed, and he will be able to tell the world of the answer he received" (from the Kaiser on June 1, 1914), "from the man who, several years before, had sorrowfully told his royal sister, when they met for a private talk in Sweden, that he was no longer the ruler of Germany; that he would lose his throne if he attempted to thwart the military party." (Page 169.)

Ever eager for a negotiated peace with the Germans, who manifestly were never regarded in the light of criminals by him, Colonel House urged in London, in 1914-15, the advisability of meeting Germany part way (page 185), and early in 1916 he "suggested the possibility of relaxing the food blockade of Germany in return for a mitigation of submarine activities." (Page 202.)

## Is This the Man to Represent America, When Fixing Punishment for the Hun?

That the monstrous immorality of the war does not weigh heavily in any consideration given to its settlement by Colonel House would seem to be indicated by this naive confession:

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all." (Page 24.)

Manifestly it is all a game, a matching of wits with internationals' wits, in a detached sort of way, as by one of whom it is said: "He has never attended a convention of any kind, educational, religious or political. He never belonged to a church or order of any kind." (The North American Review, April, 1916, page 557.)

Familiar as he was with the experiences of the German, British and French governments in the war, Colonel House was able to take a candid and



unprejudiced view of all the nostrums, cure-alls, win-the-war-quick remedies and "can-the-Kaiser" schemes which were brought forward by scores of well-meaning persons and organizations." ("The Real Colonel House," page 238.)

It is revealed that Colonel House has long favored the plan to end the war by fostering internal dissensions among the peoples of the Central Powers.

"Colonel House was one of the earliest supporters of the strategic theory of attacking the Central Powers from within with propaganda designed to stir the masses to rebellion and to drive wedges between Germany and Austria. Long before the United States entered the war he advocated this policy in informal talks with the statesmen of the Entente countries, but they declined to see the possibilities in it. A few spasmodic attempts were made, but for the most part the Allied Governments persisted in believing that there was no difference between the German Government and the German people. They insisted all through the first two years of the war in talking about annihilating Germany, rearing an economic barrier to stifle German trade and partitioning Austria. Of course, this was playing directly into the hands of the German military clique." (Pages 243-4.)

"It was not until President Wilson practically took over the management of the diplomacy of the Entente Allies, in the summer of 1917, that any real effort was made to undermine the morale of the German people by intellectual means. The results of Mr. Wilson's policy of fighting behind the enemy's lines are already becoming apparent, but the full effects of his attacks with the pen are not yet realized, even in the Teutonic countries." (Page 244.)

One of the most astounding propositions put forth by Colonel House was the "freedom of the seas" offer he made to the Germans on a visit in 1915. In describing this meeting with the statesmen at Berlin the biographer says:

"They gave him fair words, but no satisfaction, until he extended, as a fisherman casts his bait, a certain phrase of five words, 'the freedom of the seas.' So far as can be determined, Colonel House was the originator of this much-debated doctrine, at least in its connection with the problems raised by the present war. No previous mention of it has been found. It met with prompt response. \* \* \* Colonel House meant \* \* \* literal, unlimited freedom of the seas, which would imply the safety of merchantmen in enemy ports on the declaration of war; the safety not only of food cargoes, but cargoes of actual contraband; the uninterrupted progress of the world's ocean-borne commerce in the midst of the most widely-dispersed war." (Pages 188-189.)

"A vista opened before the eyes of the leaders at Berlin. \* \* \* Perhaps they thought only of the nullification of the preponderating naval power of Great Britain and the abolition of the blockade which was cutting off Germany from her sources of raw material." \* \* \* "The immediate effect of his suggestion of the doctrine at Berlin was to obtain the prompt and enthusiastic assent of Germany." (Pages 189-190.)

Is there any occasion for surprise that "the freedom of the seas" was a phrase from which the Englishmen shied instinctively, since the effect of the adoption of the freedom of the seas doctrine would be to abolish the maritime blockade of Germany and its allies, while not preventing the Germans and their allies from waging absolute war on land?

An interesting chapter on "Preparing for the Peace Conference" begins in Mr. Smith's book on page 262 with the following sentence:

"In September, 1917, the President appointed Colonel House to organize the laborious task of gathering and tabulating the mass of data which will be required by the American delegates to the Peace Conference at the end of the war."

#### Plea for Special Consideration of Teutonic Allies on Account of Their Sufferings in the War.

An outline of the work under way is given, and in mentioning the subjects to be considered, this paragraph occurs:

"Still another important subject of study is the economic needs of the Central Powers. The Teutonic allies may be relied upon to make a plea for special consideration, in view of their sufferings in the war. \* \* \* The delegates of the United States will be provided with full statistics covering a period of years, showing the various economic needs of Germany and Austria-Hungary, how they may be satisfied and the exact amount of their natural resources which must be supplemented from outside."

"The freedom of the seas is the fifth question which is occupying the inquiry's attention." (Page 272.)

"In 'Face to Face With Kaiserism,' by Ambassador Gerard, which book is dedicated to Colonel House, German opinion of Colonel House is indicated on pages 95-96, as of date April, 1916:

"I think that the Germans would now, in spite of previous statements by a high authority, welcome the intervention of the President looking toward peace. Colonel House is so relied on here that he would be doubly welcome as the bird with the olive branch."

Put forward as the ideal man to represent the United States at a peace conference, Mr. Gerard says (page 367):

"In concluding the peace negotiations, President Wilson will have the benefit of the service of Colonel House, the one man who, I believe, is best fitted to protect the interests of America and of humanity at such a conference. I, of course, saw Colonel House during the war in Berlin and in America, and I consider that no man alive is his superior in either knowledge of the whole situation or in ability to cope with the trained diplomats of Europe."

That America should be represented at a peace conference by any "super-ambassador" is strongly opposed in principle by members of the United States Senate and vast numbers everywhere. That Colonel House is qualified to interpret the thought and feeling of the United States on the war and on peace has been gravely questioned in many quarters. He admits in Howden Smith's book, page 306, that he is an iconoclast in matters of government. There is nothing shocking to him in the awful slaughter of this war; "justice" to Germany in any peace settlement is just as much to be insisted on by him, manifestly, as

justice to Belgium or any other of the allies; "peace to a war-weary world" has long been, as quoted, his ever-dominant desire, and following peace, and above all is the "itch to get at international problems," the opportunity, backed by the full authority of the President of the United States,

"To grasp this sorry Scheme of Things entire,  
\* \* \* shatter it to bits—and then  
Remold it nearer to the heart's desire!"

In 1912 there was printed anonymously by B. W. Huebsch, New York, a weird book on government, entitled "Philip Dru: Administrator—A Story of Tomorrow—1920-1935." Philip Dru is also an iconoclast in matters of government, and after organizing the masses he meets the classes in battle, completely demolishes the existing order and sets up as dictator of the United States and administrator of the world. The authorship of this work has been repeatedly charged to Colonel House; for instance, by Col. Geo. Harvey in War Weekly, January 5, 1918, and more recently by Senator Lawrence Y. Sherman of Illinois in a speech in the Senate September 3, 1918, and the charge has never been denied.

Two little touches, whimsical and fantastic though they are, would be sufficient to establish relationship between Colonel House and Dru, even though they stood alone. The name of Mandell House is given to a hotel mentioned in the book (pages 73-74), and in an inverted way the relations between President Wilson and Colonel House are referred to, in second paragraph, page 167, in this wise:

"One of his advisers was a man of distinguished lineage, but who, in his early youth, had been compelled to struggle against those unhappy conditions that followed reconstruction in the South. His intellect and force of character had brought him success in his early manhood, and he was the masterful head of a university that, under his guidance, was soon to become one of the foremost in the world. He was a trained political economist, and had rare discernment in public affairs, therefore Dru leaned heavily upon him when he began to rehabilitate the Government."

Whether the actual work of planning the book was done by Colonel House, or that his activities and views merely furnished the inspiration to some writer who knew him intimately, it is amply demonstrated that Dru's views and House's views are identical at many important points, and the assumption seems altogether warranted that Dru is House in untrammelled action.

Whether inadvertently or with intent as to the implication, Henry Herbert Childers, a newspaper friend of Colonel House from Texas days, quoted in an article in the North American Review of April, 1916, pages 562 and 563, sentiments and beliefs of Colonel House that are identical—in large part word for word—with expressions in Philip Dru: Administrator. In parallel columns these passages are given below:

#### Quotations from "Philip Dru: Administrator."

Dedication of Philip Dru: Administrator:

This book is dedicated to the unhappy many who have lived and died lacking opportunity, because, in the starting, the world-wide social structure was wrongly begun.

Philip Dru: Administrator, pages 57-58:

In a direct and forceful manner he pointed out that our civilization was fundamentally wrong, inasmuch as among other things, it restricted efficiency; that if society were properly organized there would be none who were not sufficiently clothed and fed; that the laws, habits and ethical training in vogue were alike responsible for the inequalities in opportunity and the consequent wide difference between the few and the many; that the result of such conditions was to render inefficient a large part of the population, the percentage differing in each country in the ratio to ignorance, bigotry and selfish laws. But little progress, he said, had been made in the early centuries for the reason that opportunity had been confined to a few, and it was only recently that any considerable part of the world's population had been in a position to become efficient; and mark the result. Therefore, he argued, as an economical proposition, divorced from the realm of ethics, the far-sighted statesmen of tomorrow, if not of today, will labor to the end that every child born of

#### "A Friend's View of Colonel House."

By Henry Herbert Childers, in North American Review, April, 1916 (pages 562, 563):

"I recall his saying to me, in substance, that the whole fabric of society and government has been wrong from the beginning. I positively know that if, in a redistribution of amassed riches, the greater part of his fortune were taken from him, he would see it go with serene composure and without protest. Quoting him literally:

"Our civilization is fundamentally wrong, inasmuch as among other things it restricts efficiency. If society were properly organized there would be none who was not sufficiently clothed and fed. The laws, habits and ethical training in vogue are alike responsible for the inequalities in opportunity and the consequent wide difference between the few and the many. The result of such conditions is to render inefficient a large part of the population, the percentage differing in each country in the ratio that education and enlightenment and unselfish laws bear to ignorance, bigotry and selfish laws.

"Little progress had been made in the early centuries for the reason that opportunity was confined to a few, and it is only recently that any considerable part of the world's population has been in a position to become efficient. Therefore, as an economic problem, divorced from the realm of ethics, the far-sighted statesman of tomorrow, if not today, will labor to the end that every child may have an opportunity to accomplish that for which it is best suited. Their bodies will be properly fed and clothed, so

world" has  
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President  
page 167, in  
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he began

Philip Dru: Administrator, page 45:  
I believe that mankind is awaken-  
ing to the fact that material compensa-  
tion is far less to be desired than spir-  
itual compensation. This feeling will  
grow, it is growing, and when it comes  
to full fruition the world will find but  
little difficulty in attaining a certain  
measure of altruism.

Philip Dru: Administrator, page 44:  
I know that things are not as they  
should be, but how can there be a  
more even distribution of wealth with-  
out lessening the efficiency of the

strong, able and energetic men and  
without making mendicants of the in-  
dolent and improvident? If we had  
pure socialism, we could never get the  
highest endeavor out of anyone, for it  
would seem not worth while to do  
more than the average. The race  
would then go backward instead of  
lifting itself higher by the insistent  
desire to excel and to reap the rich  
reward that comes with success.

Philip Dru: Administrator, page 45:  
Socialism as dreamed of by Karl  
Marx cannot be entirely brought about  
by a comprehensive system of State  
ownership and by the leveling of  
wealth.

#### Iconoclasm Run Wild in Matters of Government.

Working in the belief that in the beginning things were not started right,  
that society is not properly organized and that our civilization is fundamentally  
wrong, Dru overturned all the old forms of government and society. He pro-  
vided new national and State constitutions, reorganized the judiciary, regulated  
wages and bonuses of workmen and attempted to cover by legislation practically  
every problem of existence.

Chapters XLI and XLII give the new national and State constitutions Dru  
had put into effect, the old constitution and laws having been declared by him  
to be "not only obsolete, but even grotesque." "Iconoclastic" is a rather mild  
term to apply to the overturning which the present form of government re-  
ceived at Dru's hands. The courts were deprived of their power to pass on the  
constitutionality of laws; all Congressmen and Senators were to be subject to  
the recall; States were to become in effect departments of the Federal Govern-  
ment, whose Governors had no veto power and were prohibited from suggesting  
or recommending any legislation, and whose Senate and Governor were alike  
subject to the recall. (Pages 244-8.)

Dru's attack on the judiciary received attention and condemnation at  
the hands of the New York Bar Association, when at its fortieth annual meet-  
ing, in Brooklyn in January, 1917, it adopted the report of its committee upon  
the duty of courts to refuse to execute statutes in contravention of the funda-  
mental law.

What the world administrator set out to do in the way of regulating the  
affairs of and the relations between all the nations of the earth is given in  
Chapter XLVII, page 272, et seq. Dru "felt that it was almost providential  
that he was in a position to handle it (the foreign situation) unhampered."  
As it was worked out by him England and America were to join hands in a

that life may mean something more  
than a struggle for existence. Hu-  
manity as a whole will then be able  
to do its share toward the conquest  
of the forces of nature, and there will  
be brought about an intellectual and  
spiritual quickening that will make  
our civilization of today seem crude,  
as selfish and illogical as that of the  
Dark Ages.'

"Agreeing with Mazzini, Colonel  
House thinks there should be 'no war  
of classes, no wanton or unjust  
violation of the rights of property, but  
a constant disposition to ameliorate  
the condition of the classes least  
favored by fortune.'—Mazzini.

"Preferring spiritual to material  
compensation, he has thus expressed  
his views:

"I believe that mankind is awaken-  
ing to the fact that material compensa-  
tion is far less to be desired than spir-  
itual compensation. This feeling will  
grow, it is growing, and when it comes  
to full fruition the world will find but  
little difficulty in attaining a certain  
measure of altruism.'

"Touching Socialism, he says:

"I know things are not as they  
should be, but how can there be a  
more even distribution of wealth with-  
out lessening the efficiency of the  
strong, able and energetic men, and  
without making mendicants of the in-  
dolent and improvident?

"If we had pure Socialism, we  
could never get the best endeavor out  
of anyone, for it would seem not worth  
while to do more than an average.  
The race would then go backward, in-  
stead of lifting itself higher by the  
insistent desire to excel and to reap  
the reward that comes with success.

"Socialism, as dreamed of by Karl  
Marx, cannot be entirely brought  
about by the leveling of wealth."

world-wide policy of peace and commercial freedom. Custom barriers were to  
be torn down, zones of influence clearly defined for all the world and an era of  
friendly commercial rivalry established.

Germany was to have the freest commercial access to South America, and  
she was invited to develop those countries both with German colonists and  
German capital. Germany was also to have a freer hand in extending her sphere  
of influence over the countries lying southeast of her and in Asia Minor—a  
fulfillment of her Mittel-Europa dream.

The necessity of England's supremacy of the seas was recognized, and in  
consideration of the United States lifting practically all custom barriers and  
agreeing to keep out of the Eastern Hemisphere, upholding with her the peace  
and commercial freedom of the world, England, with Canada's consent, per-  
mitted Canada to come under the political influence of the United States.

"The Philippines were given their independence under the protection of  
Japan, and Japan and China were to have all Eastern Asia as their sphere of  
influence, and if it pleased them to drive Russia back into Europe, no one would  
interfere."

"Thus Dru had formulated and put in motion an international policy which,  
if adhered to in good faith, would bring about the comity of nations, a lasting  
and beneficent peace and the acceptance of the principle of the brotherhood of  
man."

[If the diplomatic crisis of the war is at hand, as some interpreters of the  
President's latest note to Germany have just declared it to be; if it is intended  
by the Administration, as claimed by some, that the allies as well as Germany  
shall give unquestioning adherence to the Wilson fourteen principles of peace,  
and if this means, as feared, a possibility that we may be put into the position  
of advocate of Germany in the peace discussions which are to come, shall we  
be content to leave to Colonel House the delicate task of trying to extricate  
America from a position so repugnant to the nation as a whole?

Even if he were not an extra-constitutional appointee, even if he had been  
commissioned by the people to represent them at this time, are the expressed  
views of Colonel House on government, justice, national honor, and, concretely,  
Germany's culpability in this war, of such a nature as to inspire the fullest  
confidence? Moreover, if later on he had to sit at a peace table with German  
diplomats, the shrewdest, keenest, most subtle and most unscrupulous of the  
world, now backed into a corner and fighting desperately for life itself, would  
he be equal to saving the honor of America? We believe not.

Are the people satisfied with the situation as it stands?—Editor MANUFAC-  
TURERS RECORD.]

#### A 16-Page Pamphlet

## Germany— The Super-Fiend

A Nation Gone Mad in Its  
Lust for Power and World  
Dominion.

A discussion of the Fallacious  
Doctrine that "Might Makes  
Right" and "As the State Can  
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Orders Crimes Committed, It  
Ceases to Be Crime."

"The German Nation's Brutality a  
Natural Product of German 'Kul-  
tur.'"

"The Degradation of Childhood and  
Womanhood by Germany."  
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Revelations of Germany's War of  
Murder for World Conquest."  
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# Woodrow Wilson for International President?

THE INTER-ALLIED SOCIAL DEMOCRATS ARE SAID TO SUPPORT HIM FOR THE HEAD OF THE LEAGUE OF NATIONS.

The Black Diamond, organ of the coal trade, in a recent issue says that the Inter-Allied Social Democrats of the World are backing President Wilson for the head of the League of Nations. In view of the many amazing developments which come to the front from day to day, the statement by the Black Diamond will be of interest, whether one accepts it as correct or not. It is as follows:

"Relying upon our promise not to disclose his identity and upon our discretion, a gentleman in high official life in Washington wrote us this week a letter containing a most interesting piece of conjectural news. It ran, to abbreviate his phrasing, somewhat after this fashion:

"When this war shall have ended, the proposal is to form a league of nations. It is proper to assume that the men who form it will not choose the imperialistic form, since they are fighting against warlike imperialism. Instead, it will take the democratic form, since the countries are fighting to make the world safe for democracy. Therefore, we can expect that the new Government will be a democracy, taking some such title as 'The United States of the World.'

"It will, undoubtedly, be the purpose to constitute a delegate assembly similar to the Congress of the United States; to have an executive similar to the President of the United States, and to organize a court similar to the Supreme Court of the United States. In a word, the world will be governed by three co-ordinate branches—the legislative, the executive and the judicial. That is the way democracy expresses itself. These representatives, so gathered from the constituent nations, will proceed to elect a President, much as the Electoral College does in the United States.

"Since the United States is now admitted to be one of the leading powers of the world, and since he has been familiar with the workings of that form of government, the logical candidate for the first Presidency of the United States of the World is Woodrow Wilson.

"The very interesting further suggestion contained in this letter is that our President will be the candidate of the Social Democrats of the world. In support of that suggestion there is put forth a very interesting series of facts.

"The Socialist and Labor parties of the Allied nations held a conference and on February 14, 1915—nearly four years ago—made a declaration of principles which in every respect is strikingly similar to the declaration of principles of President Wilson in his state paper of January 8, 1918.

"They followed the same theme that President Wilson used—that the people of the world are not fighting the people of Germany, but only the German military system.

"The Socialists and Democrats stand flatly, as the President did, for the self-determination of the people of the nations. In fact, their declarations agree with his point for point.

"The Inter-Allied Labor and Socialist parties held another conference at Central Hall, Westminster, London, on February 23, 1918. It thereupon put out another declaration of principles. This adopted President Wilson's phraseology about making the world safe for democracy; pleaded for a league of nations, which he himself had espoused; and then went one step further. It declared flatly for this new idea:

"That systematic arrangements should be made on an international basis for the allocation and conveyance of these commodities (foodstuffs, raw materials and merchant shipping) to the different countries in proportion, not to their purchasing powers, but to their several pressing needs; and that within each country the Government must for some time maintain its control of the most indispensable commodities, in order to secure their appropriation, not in a competitive market mainly to the richer classes in proportion to their means, but systematically, to meet the most

urgent needs of the whole community on the principle of the 'no cake for anyone until all have bread.'"

"Since that time there has been in Washington prolonged agitation for control of raw materials in this country. This is proposed not only for the period of the war, but for a considerable time thereafter. Indeed, the international committee for the allocation of foodstuffs and raw materials has already been effected under the leadership of Bernard M. Baruch, one of the President's advisers. The plan is said to be under way for long-time control of these raw materials, to make effective our conditions of peace.

"Seeing the parallel between the views of the Allied Socialists and the state program of the American Government, our informant looks upon it as logical that Woodrow Wilson should be the candidate of the Social Democrats to be the first President of the United States of the World.

"Up to this point the gentleman's letter looked like very plausible reasoning. But suddenly he developed that curious vein of humor once displayed by Benjamin Franklin in a critical situation. The gentleman applies the principle of 'the right of self-determination' to affairs which we understand thoroughly as distinct from the European situation, which we do not quite understand.

"He presumes that the league of nations has been perfected and that the right of self-determination has become an internationally accepted principle. Then he says there is nothing to prevent a revival of the Southern Confederacy and its insistence that for fifty years it has been held in the American Government by force of arms. It could thereupon declare its right to secede.

"He says, further, that California has never agreed with the Asiatic policies of the United States. He says there is nothing, if the right of self-determination prevails, to prevent it from seceding from the American Union that it may draft an Asiatic policy for itself.

"The vein of sardonic humor in the last suggestion leads us to suspect that the gentleman is playing a Ben Franklin trick of teaching a lesson by parable."

## 4,500,000 Barrels of Mexican Oil Shipped by Eight Companies in September.

Tampico, Mexico, October 24—[Special.]—Eight of the oil companies operating in the Gulf coast fields of Mexico shipped a total of 4,466,166 barrels of oil through the ports of Tampico, Port Lobos and Tuxpan during the month of September. Only a small part of these shipments was refined and distilled petroleum. It is expected that when the reports of all the companies are in for last month the total will show a considerable increase over that of the preceding month. It is stated that less than 650,000 barrels were coastwise shipments to Mexican ports. The companies, with the total shipments of each for the month of September, follow:

Aguila (Eagle) Oil Co., 964,763 barrels; Huasteca Petroleum Co., 1,695,101; East Coast Oil Co., 274,282; National Petroleum Co., 31,175; Cortez Oil Co., 342,122; the Texas Company, 177,867; Freeport Mexican Fuel Oil Co., 320,601; Penn-Mex Fuel Co., 660,204.

## Florida to Hold State Fair at Jacksonville.

Jacksonville, Fla., October 28—[Special.]—Judging from the present outlook, the second Florida State Fair and Exposition, which will be held in Jacksonville from November 27 to December 6, inclusive, in conjunction with the Farmers' National Congress and Pan-American Livestock Exposition, will by far eclipse the first event staged in the spring of the present year, and will be the means of attracting thousands of people to the State who heretofore have considered Florida only in the light of a conglomeration of orange groves and truck farms.

Success attended the first Florida State Fair and Exposition, handicapped as it was by inclement weather, but far greater success is anticipated for the second Florida State Fair, and up to the present a total of 40 of the 52 counties in the State have signified

their intention of participating with exhibits of their varied agricultural, horticultural and livestock products.

The annual meeting of the Farmers' National Congress, representing as it does over 5000 substantial agriculturists of the United States, held in conjunction with the big Florida State Fair, will bring these experienced farmers to Florida, where they will be shown the agricultural and livestock possibilities of the Commonwealth, and to which the citizens of the State are just now awakening. Meetings of the delegates to the Congress will be held on alternate days with those to the Pan-American Livestock Exposition, and on the off days side trips through the stock-raising and agricultural sections will be enjoyed.

Never before in the history of Florida has the opportunity to show to the world her wonderful and varied agricultural and livestock possibilities presented itself as at the coming State fair, and the visit of representatives from South American and Central American countries to the Pan-American Exposition will demonstrate the many things in common enjoyed by this part of the United States and those nations.

In view of the coming events, the great ports of Florida—Jacksonville, Tampa, Miami and Pensacola, have begun to prepare for the after-effects, which, representative citizens in each city declare, will mean a greater export and import trade with the Latin-American countries.

## Activity in Mexican Mining Operations.

Monterey, Mexico, October 24—[Special.]—Mining operations continue to show a steady improvement in practically all of the larger districts of Mexico, with the exception of those that are more remotely situated in the States of Durango and Chihuahua. Many of the larger American mining companies are preparing to bring their respective properties up to the normal state of production that existed prior to the revolutionary period of the country. It is authoritatively announced that the American Smelting & Refining Co. plans to not only bring its several smelters and mines in Mexico up to their former full outputs of bullion and ores, but that it has appropriated \$4,000,000 gold to be expended in enlarging its operations in this country.

The railroad traffic situation is the most serious hindrance to a general resumption of industrial activities. The lack of transportation equipment and the poor physical condition of the various lines comprising the National Railways of Mexico, now officially called, however, the Constitutional Railways of Mexico, makes it difficult for many mines, manufacturing plants and other enterprises to carry on the full scope of business that is demanded of them.

## Inspecting Lands Suitable for Soldier-Farmers.

New Orleans, La., October 25—[Special.]—H. T. Cory of the United States Reclamation Service and A. G. T. Moore, director of cut-over land utilization of the Southern Pine Association, have just returned from a tour of inspection of possibilities for the Government's colonization plans for returning soldiers.

The tour embraced the Everglades of Florida, the abandoned rice fields of the Carolinas and Georgia and many cut-over regions. Both were more firmly convinced than ever of the wisdom of Secretary of the Interior Lane, who originated the plan by which the Government will prepare land for occupancy and sell it to soldiers at cost on long terms.

At a meeting of the Southern Land Congress, to be held at Savannah, Ga., November 11 and 12, Secretary Lane will make public the results of his preliminary investigations, together with his conclusions.

## Ingersoll to Use Cypress in "One-Piece" Houses.

Jacksonville, Fla., October 26—[Special.]—For the purpose of investigating the various qualities of cypress lumber, Charles H. Ingersoll of New York, originator of the "one-piece house," which has solved the housing problem in many Eastern communities, has just completed an extensive survey of the cypress-producing sections of Florida, with the idea of utilizing this material in the concrete molds of his one-piece dwellings.

The results of the visit of Mr. Ingersoll to Florida were the placing of several orders for a large amount of cypress for immediate shipment to the East.

Unless Germans learn through the invasion of their own country by the allied troops the real meaning and the horrors of war, they will in a few years forget all present protestations of peace and be ready to start another war. We are not fighting merely to win this war, but to make it certain that Germany will never start another war. If we fail in our duty to invade and conquer Germany fully and completely, we shall be false to the future and millions will have to die in some future war because we proved too cowardly to really win this one.

## Germany and Peace

By HERBERT WHITING VIRGIN, D.D., A. E. F.

[The Rev. Herbert Whiting Virgin, D.D., the writer of the following letter sent from France, October 14, to the Manufacturers Record, is one of the foremost Baptist ministers of Virginia, a man of the highest integrity and worthy of the most implicit confidence. He is divisional chief secretary of the Y. M. C. A., American Base No. 6, A. E. F. Dr. Virgin left the pastorate of one of the leading churches in Virginia to join the Y. M. C. A. in France. This letter comes straight from the battle-front to the Manufacturers Record. It is a ringing cry from a man of God for a punishment of Germany which shall teach the Germans a lesson which may forever prevent that nation from again deluging the world with blood.]

Dr. Virgin writes of what he, himself, has seen. Every word of his letter should be burned into the conscience of the American people, from the President down to the most illiterate and the poorest in the land.—Editor Manufacturers Record.]

Germany is hopelessly defeated. She is suing for peace. But while she is suing for peace she is sinking vessels with not an ounce of war material in their holds, but crowded with men, women and children, all civilians. She is doing this in broad daylight, without the semblance of excuse, for the submarine commander could see the nature of the vessel he was torpedoing.

Germany is suing for peace, but while her defeated armies are retreating toward the Rhine she is burning towns and villages, mining beautiful buildings with time explosives, to destroy our victorious troops as well as the buildings at the same time. Foul brigands that they are, they are stealing anything and everything of value they can lay their hands upon. More, they are driving men and women and children into slavery still. Mark you, this is going on now, the fifth year of the war, not the first, and while the barbarians are crying for peace!

Are there any words in our language which can express the righteous indignation which civilized people should feel against the barbarous warfare which they are still conducting?

Germany is defeated. She has driven refugees into slavery worse than death, and I have tried to save some on the Allied side of the line. She has driven hundreds and thousands into slavery on the other side of the line, and only God knows the horrors through which they have gone. And she is doing this now, in the fifth year of the war, as she did it in the first. And she is crying for peace, while conducting her hellish warfare against all laws of civilization!

Is it possible to deal with a nation whose fiendish acts are the very deeds of hell on the basis of dealing with foes who are equals and who conform to the same code of international laws as we do?

Or, suppose the nation has been hypnotized by a concept emanating from the Prussianized military powers, are we to deal with a people who are under such a spell as we would with those who are normal?

Are we to treat robbers as we do honest men?

Are we to treat incendiaries as we do protectors of property?

Are we to treat vandals as those who conserve?

Are we to treat despoilers of girls and women as those who reverence womanhood?

Are we to treat murderers as those who love their fellow-men.

Are we to treat madmen as those who are sane?

It is not only preposterous, but it is the greatest injustice to a civilization which has been blasted and blighted by these vandals.

It is an injustice to that civilization which has its basis in the lessons of the Cross.

Why do not men who cry for compromise, or a sort

of willy-nilly clemency, apply the same principles to the moral problems at home? They would have to do away with laws, with peace officers, with courts, with jails and penitentiaries and asylums, and, yes, capital punishment! We dare not turn violators of the law loose upon a law-abiding citizenship! We must punish to protect. This is equally true with nations as with individuals.

I protest in the name of a civilization which has been thrown back for at least a century, and which will suffer a century more.

What about our own boys? I have seen the blackened backs of boys who have suffered from the mustard gas. There are hundreds who have been affected in a way I cannot describe in print. They are living—at least until a remedy is found—a living death. I have seen others suffering from the effects of other gases less deadly but excruciatingly painful, and these brave lads were raised to believe in and to fight an honorable warfare. Reprisals were the only remedy which had any effect on the German.

I have talked with a clergyman who was for three years in a captured town. He pleaded for his suffering fellow-citizens who were being sent into a slavery or being murdered. The only satisfaction he got was "What are 10,000 more corpses to me?" Now that Germany is on the verge of an invasion, and she will, if invaded, have to suffer as Belgium, France, Roumania, Serbia and Russia have suffered, she cries for peace and clemency!

There should be a dictated peace, not a negotiated peace, and as Senator Lodge stated, "it must be a dictated peace, and we and our Allies must dictate it."

Let us punish leaders, that those who follow may not forget or aspire to leadership.

Let us insist upon indemnities, not for ourselves, but for our Allies, that those who despoiled may never forget the price they had to pay for their despoilation.

Let us control Germany's iron and coal industries, that they may never again be able to amaze the world with an engine of war, as they did when they leveled the forts of Liege with their 16-inch howitzers.

Let us insist upon a government of the people and by the people and for the people, and banish forever the Hohenzollern dynasty and the Prussian military leaders, that there shall not burst upon a suffering humanity a similar series of horrors.

Let us restore that which has been stolen from France and other nations.

Let us establish and police the world by some international compact, that peace may be assured.

And when Germany is cured of her malady, let us treat her as normal and equal, and not until then!

A. E. F.—A. P. O. 752, France.

## An Unbeaten, Unpunished Germany Would Humiliate Our Nation.

New York, October 3.

Editor Manufacturers Record:

We beg to thank you very kindly for your promptness in sending us another copy of your issue of October 10, the writer's secretary finding no copy in our file of this issue and the writer having seen it elsewhere; it must have been lost in the mails.

Your front page should be, in the writer's opinion, engraved on the heart of every red-blooded person in the United States, and, for that matter, in the world.

We are accumulating in this office a little exhibit, and have a little bulletin for choice cartoons, depending to date on the New York Herald.

This illuminating page will be pasted up on our office bulletin and stay there, and we shall read it and refer to it frequently with the same interest and sense of satisfaction that we experience every time we read again President Wilson's reply to Germany, dated in Washington Monday, the 14th inst.

Your paper has stood for a settlement with this band of robbers which is entirely in accord with justice, and our soldiers at the front which would be humiliated and disgusted if any other sort of peace was ever made with this nation than that you have stood for since the war started.

Congratulating you on your high stand and wonderful articles, which we read in the office and also in our homes, the writer remains,

Yours for victory by military decision,

PACIFIC FLUSH TANK CO.,

S. F. MILLER, President.

## A Let-Down in War Spirit Because of War Notes and Fictitious Peace Talk.

JAMES F. TURNER, Secretary Flynn & Emrich Company, Baltimore, Md.

We take this opportunity to express our appreciation of the wonderful work that your paper is doing at the present time.

May we call your attention to one of your articles on page 3 of the reprint of your October 10 issue, entitled "Do Not Be Deceived; Germany Is Not Crushed; the War Is Not Yet Won."

The writer is surprised that this particular phase of the situation is not brought out more frequently and kept before the people more than it is.

Ninety-nine and nine-tenths per cent. of everything we read in the papers today is practically to the effect that it is all over but the shouting, and this is the feeling of ninety-nine people out of a hundred that you meet today.

What is the consequence? There is a general relaxing from an individual standpoint all along the line. This was reflected very forcibly in the last Liberty loan.

In the writer's opinion, the German peace offensive has been launched, but in an entirely different manner than anyone had expected, and has caught nearly all of us off our guard.

I personally feel that there is a long way to go and much to be done before this war is settled, if it is to be settled in the way that we all declared it must be, and it is for all of us to throw our energies into the fight more today than ever before.

If I am wrong in my conception of matters, no harm will be done, but if I am right, incalculable harm will be done if the country at large begins to ease up and let go in general. Therefore, in my opinion, it would be well to give the very broadest publication to such articles as above referred to.



# THE WORLD MUST CRUSH GERMANISM IN THIS WAR OR EVENTUALLY BE CRUSHED BY GERMANISM. THERE IS NO MIDDLE GROUND, AND HE WHO ADVOCATES PEACE ON ANY OTHER BASIS IS FALSE TO ALL CIVILIZATION.

## Lest We Forget

By REV. EDMONDS BENNETT, D.D., St. John's Rectory, Memphis, Tenn.

[A heart-searching story from a Memphis minister of Germany's fearful atrocities and God's call for punishment of such black crimes. Rev. Dr. Bennett has done all civilization a great service in this superb call to heroic work to overcome and punish criminal Germany.—Editor Manufacturers Record.]

The arch apostles of German Kultur, Treitschke and Nietzsche, who have accomplished the indoctrination of their countrymen through all grades with a completeness outclassing the prophet Luther, neglected no invective of contempt for all called Christian, not sparing the Founder.

Christ was the world's master handicap and His religion its great calamity. So they affirm and teach.

The "good old God" of Hohenzollern patronage is not the God of this era, whom these sinister priests of degeneration gayly mocked at as "dead," but the Image of gold, iron and clay their atavism set up for the inspiration of Teutonic Kultur: Pagan recrudescence.

Following them, the reversion of the German nation has been definitely to the collective, composite god of the Canaanitish period. So penetrating has been the inoculation of the pernicious college of prophets that cultural brutality from the soul outwards has been accomplished in the subjects, through every tissue and pulse, and a spiritual deterioration so utter that not only the leaders in chief in all departments of the country's life, but contrary to supposition, even after the war was well under way, the unsophisticated (?) masses had become incapable of even elementally gauging the psychology of peoples unlike themselves. "Evil, be thou my good," had wrought the Satanic in them with such scientific completeness, such unsparing infiltrating through all their processes of thinking and feeling, that words and other symbols no longer signified for them what they mean to other people. Facts not to be forgotten in settling with them.

They had become disqualified not only for concepts, but for language, which had lost its standardized value. And so a great gulf was fixed between them and normal civilization.

"If the light that is in thee be darkness, how great is that darkness." How tragic a diagnosis of the case of the Teuton that sentence pronounces!

Germany asks terms consistent with Germanic honor. What bitterer Nemesis for her than the acceptance of her proposition. No judgment can surpass in severity that her own mouth offers. If her own words are to furnish the standard of her doom and her acts the pattern, which is to say if German "honor" as thereby expressed and illustrated is to lay down the line to which the court of last resort is to hew, then has she pronounced sterner terms than any contemplated yet.

The French polli whose wife, one month from accouchment, was deprived of both hands by the Uhlan, would have no Uhlan's wife suffer that way in reprisal, and the handless mother herself, when four weeks later the Hun physician who saw her through, being thanked, retorted, "don't thank me, your child will never see," would have no German baby blinded in birth. What then? It is plainly the more imperative for others to secure that equity for the sufferers be vindicated in their sight unforgettably, as far as can be.

We are asked to consider the unmorality of vengeance. What about the morals that would debate an issue like that, and when each atrocity is proven to belong to a series embraced in deliberate ordered plan and system, to an end held to sanctify any diabolism, avowedly defiant and contemptuous of a world aghast and staggered?

To overlook or minify is to slump into a weakness that is wickedness and to incur the opprobrium of collusion; hardly less revolting because after the fact.

The Ten Commandments, with their inferential penalties, are ten definitions of the Eternal love no less

than of the Eternal right, and so are incorporated in the Christian system, and the Christian religion requires that they be vindicated and honored in the interests of goodness itself.

People misguide themselves with words, unaware of what they imply and equally of what they do not. Our God is a God of mercy, but not of infinite good humor and an unchanging smile.

"Vengeance is mine. I will repay, saith the Lord." Yes, and part of His method of administration is through a code He committed to human hands to safeguard, calling it holy. No gospel can abrogate the moral law or consent to its laissez faire administration.

Smile equally upon the innocent and the criminal, and that smile becomes a withering blight in which all morals blacken. Such indiscriminate would be nothing short of a crime—postulate.

Is there a more serious menace this very hour than condemnation talk, or anything more unreligious, masquerading as it does under the avowal of principles it either does not understand or to which it is traitorous? "He that would eat with the devil needs a long spoon."

"Woe unto you, scribes and pharisees, hypocrites, for ye neglect the weightier matters of the law, judgment." He who for personal wrong prayed "Father, forgive," said that in the court of human assize to the falsifiers and oppressors.

Ah, if we could assemble the witnesses.

Maidens whose guileless lives have been wantoned into gray years haunted with memories that burn and sear and crush and fester.

Babies defiled in their very conception.

Motherhood made a curse and wifehood more bitter than widowhood.

The company of the deliberately maimed in every member of their unoffending bodies, from the nursing to senile helplessness.

No sanctuary of human life or death unviolated.

Witnesses writhing on crosses, Redemption's own outraged emblem.

The sacrosanct murdered to defeat not enemies, but deeds of mercy and healing.

Innocents smothered in the deep through lust to see them die.

Crimes before which loot and theft and arson, incredible filthiness and hilarious desecration and ruin of treasures become petty.

We do assemble the witnesses, and, moreover, would vest the verdict in their scarred hands rather than in the hands of such as have known no agony, and to whom "forgiveness" is not an achievement through their own anguish but a quasi religious shibboleth as cheaply acquired as dispensed.

We spoke of words. One of the big words of the Bible is "damn." Like the unclassable greatest of all words, "God," it can be profanely used. But it is a great strong final word that is out of place in any profanity even as the name of the Creator is, and should be redeemed from feeble vulgarity. Now is the time and here the call to redeem it. 'Twould be a relief to hear some of our special pleaders for comparative acquittal of the unspeakable Bosch-Caliban voice it with comprehension of its solemn magisterial note as in the New Testament setting. As, for example, when the Master, facing a conspiracy of self-styled supermen whose supercrime was that they "despised others," challenged "How can ye escape the damnation of hell?" Nor did He say "My mistaken brothers," but "Ye vipers, ye serpents, ye children of the devil and hell!"

The German was so super that even in his Kaiser,

the blasphemous plenipotentiary elect of all power, he could not and did not believe this nation would spend its money other than as the materialist astride the Rhine himself would.

America is spending it, together with much besides whose value is not computable to a self-brutalized progeny of deadly egoists. But America must have her price as her co-allies must, and that price as earnest of full pay to humanity insulted, piratized and bathed in bloody sweat, is fathomless damnation for German Kultur in the womb of the blackness of darkness from which it sprang. Which again means penalties befitting the crimes engendered. And over the portals of Germany's incarceration in bonds should appear, "Thou shalt by no means come forth 'til thou hast paid the uttermost farthing."

Not to demand ample restitution for what Germany has done, not in any blinding fit of dehumanizing rage of a maddening conflict, but with scientific cold-blooded calculation, worked out with the utmost precision her boasted mathematical genius could supply, would be to endorse her Kultur, provoke her laughter and encourage her conceit of "might is right," and more serious yet, to break faith with those who died on Flanders field and many another, and with the motherhood not only of the past, but of the future. The way to cure the German is to secure him and keep him so until restitution is accomplished. If he prove incurable, the more unqualified the call for safeguards.

### A Virginia Woman in Italy.

Villa Bagnolo, Appennine, Mugello.

September 13.

Dear Mr. Edmonds:

I have just read an article from your pen in one of the most popular of English papers, the Field. It opened my eyes to the vast resources of the United States of America, and made my heart thrill with pride of country as I read your words and realized all America could do and is doing for all the world in need. I also knew that you were one of the few men whose accurate knowledge of her resources was entirely to be relied upon. I was among English and Italians. I being the only American at this summer place, and it interested them greatly to find that I knew you personally. People are beginning to think very differently of America now.

Since the night I last saw you in Baltimore, long ago, I've lived mostly in Italy, with visits to France, England, Switzerland, etc. Things are very difficult here and in Florence. Although the exchange has gone down, prices are still going up, until I don't know what we will do. It is impossible to get fuel of any kind, and the winters in Florence are more severe than in Virginia, because of the winds from the snow-covered mountains. Flannel is also out of reach, and last winter I suffered terribly. In Florence I am now in an old palace where there is no gas and no electric light, and we cannot even get a little petroleum for lamps. I am reduced to very bad candles, for which I pay 12 cents each, and it takes three a night to see in the great dark rooms. Oil is dear and very difficult to get. Sugar we are given in infinitesimal quantities, once in 10 days. Butter is out of all question, and we have no sweets, only chocolate, which is very poor and dear. Yet, the courage of the people is wonderful. There is a young English officer, who has been here twice, and he has lost his left leg from the hip, and yet he dances, plays tennis and sings a good song. I have seen no American soldiers here, not even in the Red Cross.

The crops in Tuscany are fine, and the farmers are the most independent people, for they are receiving such prices for their products! Yet, they thresh wheat like people did a hundred years ago. Fruit is abundant, but so dear.

Very sincerely yours,

MARY GRASTY BROCKENBROUGH.

## What the American People Are Driving at Is Unconditional Surrender.

Dallas, Tex., October 22.

Editor Manufacturers Record:

It seems to me that in our discussion of and our thinking about war and peace that we so often lose sight of fundamental principles.

First of all, if the cause of the Allies is not a holy cause and one of righteousness, and if we are not doing God's work, we have no business in the war and should apologize to Germany and get out of it at once. If England and France are not fighting for a cause altogether righteous, we had no business to join with them. But we are agreed that we are engaged in doing God's work and fighting for righteousness. Therefore, war in this case is a holy business and is the highest form of work in which humanity can be engaged.

It seems that the will of God on earth can only be expressed through human instrumentality. God does not stay the hand of the Hun brute when he thrusts his saw-tooth bayonet through the body of the Belgian child, except as he gives power to human beings to do so. Therefore, war, like many other things in life, can be dedicated to a cause most holy or it can be prostrated to a cause utterly base and sinful. So let us keep these fundamental notions in mind in our thinking about war. We will be assailed on every side by the notion that war is so terrible that it should be stopped at the first opportunity.

It is said that the highest law of nature is self-preservation; but this does not apply if we mean by self the material or physical body. If this were so, men by the millions would not go to fight and die, if need be, to preserve a worthy cause. The only man who is fit to live is one who is willing, if need be, to die to preserve principles of righteousness and justice. And he knows that his real self cannot be shot with bullets, burned by fire nor destroyed by poison gas, and that the only self-preservation that will avail is to live for principle.

And again we hear a great deal about forgiving the Hun. The fundamental basis of attaining forgiveness for sins as taught by the churches is repentance and restitution for wrongs done, as far as it is possible. So, even God cannot, or at least will not, forgive the repentant Hun; need we worry about it?

Now, we started out to make the world safe for democracy, and that in order to accomplish this we concluded that it was necessary to destroy German militarism. But if we have changed our minds, and only intend to scotch the beast and run him back to his lair, it will be necessary that France, England, Italy, the United States and the other allied nations maintain their present military forces, as we have just reached the point where we can push the Hun back. On the other hand, if we really intend to destroy German militarism, we will have to push the war to a logical and complete finish. That is, to an unconditional surrender. All else is to compromise and to abandon our high principles.

We are not to continue the war in a spirit of revenge or retaliation, nor even punishment as such, but merely to push it to a logical conclusion, and that the essential restitution and reparation may be made.

The Germans themselves have determined their heavy obligations for life and property destroyed, and no man nor government has a right to set aside these obligations to the injured people. It is just a mere matter of common justice and right that they discharge their obligations to their full ability to pay. And certainly the court which passes judgment on the criminal does not humiliate him. He has brought on the humiliation by his own acts, and the punishment is now looked upon as for the reformation of the criminal, and is not done through a spirit of revenge. Germany should be put in the hands of the court and her affairs administered for the benefit of her creditors.

And because Germany has killed women and children in the invaded countries we will not follow their example on German soil. We should not destroy property wantonly, as Germany should be left in condition for maximum production in all lines of commerce, and she should be required to produce values to the fullest extent. But every dollar above a bare subsistence and necessary replacements should go to pay her great obligations for life and property destroyed, together with all court costs incurred in the arrest and trial of the criminal. So, having put our hands to the plow, we should not turn back, but push the war to the only just and logical conclusion—unconditional surrender.

We may be a good deal confused in our discussions

of an armistice and peace terms, but what the American people are driving at is that unconditional surrender is the only terms they can tolerate for an armistice, and we do not want an unconditional surrender that has to be explained. To us it means that Germany must surrender her armies and lay down her arms. After that, the peace can be arranged.

VERNON H. SMITH,

Member Am. Soc. C. E.

## The Terms Which America and the Allies Should Demand.

Tampa, Fla., October 5.

Editor Manufacturers Record:

I herewith enclose check for a year's subscription to the MANUFACTURERS RECORD. I consider inestimable the work being done by you in educating public sentiment to the only kind of peace we should accept from the Huns.

The Central Powers, according to today's dispatches, are clamoring for a peace conference and armistice. I consider this the most crucial period of the war, not as to German arms, for they are beaten, but from a naudin sentiment that may be allowed to invade the minds of the American people in a spirit of extending a helping hand to a beaten foe.

Any sympathy or leniency shown Germany will, in my mind, receive the same consideration the huntsman got from the snake after bringing it back to life.

Unconditional surrender, full reparation and restoration by Germany of all she has taken and destroyed, the payment by her of all the war has cost the Allies in men and material, as far as it is possible to pay with a money consideration for her crimes, are the only terms we should accept.

G. A. PETTEWAY.

## Stop Negotiations—Stop German Propaganda.

WM. C. CORNWELL, Editor Bache Review, New York.

During all that period when our armies were successfully fighting back the enemy in the great advance that began on July 18, we heard nothing from the Germans in America. Now a flood of talk from them is sweeping the country. Everywhere they congregate one will hear arguments claiming that Germany has conceded everything and that a peace conference should be granted her. Weak-minded, and even some otherwise intelligent people, are liable to be led away by the specious arguments of these traitorous advocates of mercy. This is most dangerous to the morale of the whole country, and should be met with the sternest disapproval and refusal to discuss the question.

The great ruling thinking majority of the American people are firmly convinced that there is but one right way to end the war. That way is to carry it on until the enemy surrenders unconditionally.

This great body of citizens is deeply disturbed that the German plea for negotiations has received attention and even the encouragement of argumentative reply.

THEY BELIEVE THE COUNTRY IS INCURRING THE DANGER OF BEING FINALLY DRAWN INEXTRICABLY INTO COUNTENANCING A DISCUSSION AT A PEACE TABLE WHERE GERMANY, THE BLACKEST CRIMINAL IN ALL HISTORY, WILL BE ALLOWED TO INFLUENCE ON EQUAL TERMS THE VERDICT CONCERNING HER OWN CRIMES AND SO ESCAPE JUST PUNISHMENT AND RETRIBUTION.

The country is deeply stirred that the bare possibility of such a monstrous result is allowed for a moment to exist.

The demand of the people of the United States is that any further discussion whatever with the German Government be ended once for all by the demand, firm and final, for unconditional surrender.

## Anything But Unconditional Surrender Is a Draw.

Atlanta, Ga., October 22.

Editor Manufacturers Record:

Anything but unconditional surrender in this war is a draw, and history will so record it. Any communication at any time whatsoever with the enemy before unconditional surrender smacks of weakness or treason to our boys and our cause. The enemy knows what unconditional surrender means, and if that is not America's ultimatum, the world will doubt our Administration's purpose from start to finish.

W. E. WIMPY.

## Why Germany's Criminal Leaders Should Be Hanged and Its People Re-educated.

Fountain Inn, S. C., October 20, 1918.

Editor Manufacturers Record:

I think you are making a very grave error in attempting to create a sentiment in favor of physical punishment of those responsible for the war, and thus directing attention away from the more urgent need of making another such war impossible.

We are not a blood-letting people. When our sense of justice demands capital punishment, the inevitable reaction finds us led by repentance and sympathy rather than judgment, and mercy constrains us to do less than our duty.

Let us suppose that Germany has surrendered without condition.

If, then, we adjust the claims of oppressed and bound peoples, give France her rightful property and indemnify Belgium, and then proceed to hang those Huns who brought about the war, our people and the civilized people of the world will feel that we have finished well the task assigned us, and will settle back into apathy, leaving Germany to such schemes as she may desire to recoup her losses and prepare for another stroke.

Does anyone suppose that defeat of the Hun will change his nature? Is a whipped Hun less a liar than a combatant Hun? He is treacherous in war. We know now that he was treacherous before the war. By what queer twist of reasoning do we arrive at the conclusion that he will be less treacherous after the war?

And what shall we gain by hanging the Kaiser and his chief accomplices? Are they the only Huns in Germany? Are we to swallow whole the President's assumption that the Kaiser and his people are two distinct breeds, the one a wolf and the others poor lost lambs?

They are as like as peas. Master and man, there is no difference, save that of rank.

This war has demonstrated that it is possible, after all, to indict a whole people. But we cannot hang a whole people.

If we cannot punish all, what profit in punishing a few?

Punishment for crime has as its first object the protection of society, not revenge on the person of the criminal.

With the Kaiser, his six sons and their chief lieutenants hanging in a row, will Germany be less a criminal? Her character is bred in the bone. That we have but recently organized it is no reason why we should jump to the conclusion that its formation is recent.

Germany, with or without her chief criminals, will be a menace while she has strength to be a menace.

I can conceive of but one method by which she may be definitely and effectually shorn of her power for mischief.

Russia, with her old greed and the marvelous fecundity of her peasant women, might have terrorized the world but for one thing. She lacked open ports.

The great nations of history were those that sent men down to the sea in ships.

We must, for the sake of present security and to guarantee the freedom of posterity, deny the Hun access to the seas he has prostituted to the business of organized assassination.

A reconstituted and reorganized Poland must have frontage on the Baltic as far west as the fifteenth parallel, and Belgium must have a strip of territory south of Holland and thence east along the North and Baltic seas to the fifteenth parallel.

If this seems much to give Belgium, who shall say that she deserves less for the agony she has endured?

We cannot hang Germany.

We can confine her.

And if we do our plain duty in this matter, securing Belgium in her new possessions by the might of the allied nations, the menace of the Hun will be forever removed from the horizon of civilization, and never again will one great nation lightly violate the neutrality of a weaker neighbor.

ROBT. QUILLEN.

In answer to Mr. Quillen, we think, a great deal will be accomplished by the hanging of the Kaiser and his accomplices. When murderers run riot civilization must protect itself by the death of the murderers. For the same reason, and in order to eliminate from the world the influence of the gang of murderers who have been responsible for these fearful crimes, the murderers should pay the penalty with their lives.

We believe like Mr. Quillen, that the defeat of the Hun will not change his nature. In defeat, the Hun will be just as much a liar as he has been for years. The Kaiser and his crowd and the whole German people are alike guilty, but we cannot hang the whole German nation. We can hang the leaders and punish the others. Otherwise we shall fail to do our duty to God and to mankind.

It will take years of teaching to educate the German race into new ways of thinking, and the first education should be the death of the criminal leaders as an object lesson that "might is no longer a god to be worshipped."



## Will the President Oppose Demand for "Unconditional Surrender?"

Law Offices of Kingsbury & Hendrickson.

Wayne, Neb., October 24.

Editor *Manufacturers Record*:

Enclosed find check for \$13 subscriptions to MANUFACTURERS RECORD, it being money well spent.

The power of the press is an irresistible force and the power of public opinion is an immovable body. With these two great forces, the greatest known, demanding an unconditional surrender on the part of Germany, will the President oppose. Add to this the wish of 10,000,000 well-trained soldiers, who are ready, able and willing to compel an unconditional surrender, again I ask, will the President oppose?

The surrender of Germany will liberate 200,000,000 peoples. It will bring stability and poise to three continents and a safeguard to future generations against the bestiality of the Hun.

The rape of Belgium, the torture of the Serbians, the crucifixion of the Canadians, the murder of the French women and children will in a small measure be atoned by the surrender of the Germans.

History will record and future generations will take warning that the way of the transgressor is hard by the surrender of Germany.

Above you have the three only known reasons why criminals should be punished, viz., first, impossible to commit the crime again; second, punishment of the criminal; third, example to others.

Allow me to say that my copy of the last MANUFACTURERS RECORD is in such demand that I believe I will have to subscribe for more copies.

I am with you. On to Berlin!

C. H. HENDRICKSON.

## For Unconditional Surrender and Adequate Punishment.

Atlanta, Ga., October 26.

Editor *Manufacturers Record*:

I have been an enthusiastic reader of your publication for more than five years, and have approved of practically all of your policies, more especially those relating to the present war, as all the editorials and other articles evince study, thought and sound judgment. As I contemplate going with the colors soon I want to express my appreciation of the work you are doing and to let you know that I, together with a great number of my acquaintances, are with you in your program of just and adequate punishment (as far as humanly possible) for Germany and the German people, as, in my opinion, the Government and people cannot be separated. The reading of your paper has not made me more anti-German, as I have never had any use for the low-down scoundrels, but it has furnished me with arguments in trying to convince others that it is impossible for the Allies to punish Germany more than it deserves.

Personally, I do not believe that it is humanly possible to conceive of a punishment for the Germans that would be commensurate with their crimes, so the Allies should do all they can to punish them, as best they can, by boycotts, indemnities, humiliations, and the entire German nation should be made slaves until all invaded territories have been restored to an even better and more prosperous condition than they were before the fiends began displaying their total depravity. Of course, it goes without saying that the leaders should be hung. It is not revenge we want, for it is impossible to adequately punish Germany, much less take revenge. My contempt for flabby persons who do not believe in punishment is beyond words to express, for they are either Germans, imbeciles or fools, and should experience the treatment the Germans have inflicted on the people of invaded territory to convince them that there is a difference between right and wrong.

One can allow for differences of opinion in regard to some things, in fact, most things, but certainly not in regard to punishment for Germany, for everyone should know by this time that the Huns of today are the most depraved beings ever created, and that the devil himself would blush to commit crimes the Germans are guilty of. It would be superfluous for me to go into detail of why I think the nation should be punished and what would be an adequate punishment, for there is none, but, suffice it to say that one could rest assured of the future if he knew that the punishment was in the hands of such men as yourself.

It would be a calamity to the world if the leniency

advoated by President Wilson for the Germans was supported by the other leaders of the Allies. I have always considered Mr. Wilson one of the greatest men the world has produced, but with all that he is not infallible, and it is a relief to find such papers as yours that do not agree with everything he says, whether right or wrong. I refer particularly to your editorial of October 24, "The American People Still Have the Right to Voice Their Sentiment," and especially those who contribute directly to the winning of the war. So many people act on the theory that one should wait until he sees what President Wilson does or says before expressing his opinion. That is an obviously utterly false theory, for what weight would anyone's opinion have after the matter has been settled, only to condemn the one responsible for the settlement, or commend him, as the case might be? Mr. Wilson has made some serious mistakes and is liable to make others, or at least not carry out the wishes of the people unless they have backbone enough to make those wishes known.

I certainly hope that the next election will send representatives to Congress that will not be dominated by Mr. Wilson, for I do not think any one man in the world is capable of rightly acting for an entire nation without the aid and advice of others. If Congress is going to be controlled by him, as the German assemblies are controlled by the Kaiser, what earthly use is there of going to the expense of having a Congress at all?

The German people and Government cannot be separated in the matter of placing responsibility for crimes committed during the last four years, for if the people had not been willing to commit the crimes there is no earthly power that could have made them do so. They were willingly led on their expedition of crime and destruction, and even if they should by any chance depose the Kaiser, that act certainly would not expiate their crimes.

Yours for unconditional surrender and adequate punishment,

W. E. MCINTOSH.

## Unconditional Surrender and Punishment for Crimes.

Moorhead, Miss., October 23.

Editor *Manufacturers Record*:

I enclose an editorial from the Memphis (Tenn.) Commercial-Appeal that shows about how we feel about it down in this neck of the woods, especially the fifth clause that I underscored. I thought you might enjoy reading it.

W. M. CARTER.

The Editorial from the Commercial-Appeal is as follows:

### GERMANY'S REPLY A PLEA OF CONFESSION AND AVOIDANCE.

Self enters a plea of confession and avoidance. It is vacillating, nebulous and weak.

If the German fundamental law has been changed so as to give the people full representation and the right of veto, what guarantee can Germany give that so soon as the present difficulty is over these rights will not again be taken away from the people.

The entire Germanic conversation has been a waste of time and a diversion from the main thing.

The terms of the Allies as to surrender of territory, as to indemnity and as to the destruction of the German Empire, as present constituted, should be put in concrete shape, signed by all and published. Then let the fighting continue until Germany is willing to meet these terms and signify by an unconditional surrender.

*The German Empire must be destroyed. The German army must be destroyed. German kultur must be annihilated and the German people must be civilized. Amen.*

Or Mr. Wilson might write this: "Alsace and Lorraine back to France, Schleswig-Holstein back to Denmark. German Poland back to an independent Poland. A seaport on the Baltic for Poland and indemnity to Belgium, indemnity to France and payment for ships illegally destroyed. Occupation of Essen, Hamburg, Berlin and Koenigsberg until the indemnity is paid. This note is approved by Lloyd George, Clemenceau and Orlando. If these terms are acceptable see Foch."

In the meantime let not America think the war is over. All our preparations and work must continue. We must redouble efforts so that 4,000,000 fighting men will be in France by spring.

If they are not needed there they can have the benefit of a fine training in practical Americanism.

The following pamphlets, published by the Manufacturers Record Publishing Co., should be read by every citizen of the United States because they present an unforgettable picture of what German infamy and German plans for world dominion mean to the free nations of the earth. The atrocities and the unscrupulous disregard of all points of honor which actuate Germany show that that nation has sunk into a degree of atheistic barbarism which will utterly destroy all civilization unless Germany be overwhelmingly defeated and made to pay the full cost of the war and unless its leaders be punished with death for their crimes. In Germany's awful crimes we are merely witnessing the fruition of the doctrines preached by Frederick the Great, by Treitschke and Nietzsche, by von Bernhardt and the present Kaiser and many other German leaders.

The following pamphlets covering all of these great issues should be read by every American and distributed by every lover of humanity to friends and employees:

### WHAT SHALL BE AMERICA'S ANSWER TO GERMAN PEACE PLEAS?

Including Editorials From Recent Issues of the Manufacturers Record and Rev. Dr. Newell Dwight Hillis' Superb Address:

"The Hour Is Big With Destiny—Only Safe Word Is Unconditional Surrender."

5 cents per copy; 25 or more at 4 cents per copy; 100 or more at 3 cents per copy.

### GERMANY — THE WORLD'S BLACKEST CRIMINAL.

A Wonderful Presentation by Secretary of State Hon. Robert Lansing and Others of the Crimes of Germany, Even to Recount Which Would, Secretary Lansing Says, "Sicken a Tiger."

15 cents per copy; 100 or more at 10 cents when shipped in bulk.

### GERMANY — THE SUPER-FIEND.

A Nation Gone Mad in Its Lust for Power and World Dominion—A Discussion of the Fallacious Doctrine that "Might Makes Right" and "As the State Can Do No Wrong, If the State Orders Crimes Committed, It Ceases to Be Crime."

5 cents per copy; 25 or more at 4 cents per copy; 100 or more at 3 cents per copy.

### GERMANY'S WAR PLANS AND HER ATROCITIES IN BELGIUM AND FRANCE.

By Rev. Newell Dwight Hillis.

5 cents per copy; \$4.00 per 100.

Published by  
MANUFACTURERS RECORD PUBLISHING CO.,  
Baltimore, Md.

# A Father Who Has Three Sons Fighting for Civilization Demands Unconditional Surrender.

Decatur, Ala., October 21.

Editor Manufacturers Record:

I thank you for your earnest and insistent demand for the "unconditional surrender of Germany, full reparation and impartial justice to the victims of Germany's accursed war."

We want no parley or armistice with a people who, after more than forty years of preparation, deliberately put their armies in motion to subjugate and plunder the world.

No peace can be permanent that is not dictated on German soil by the Allied commanders, in the manner and after the precedent established at Versailles at the close of the Franco-Prussia war.

I have three sons in the service (two of them in the trenches in France), whose return would gladden our hearts above all things, but I do not want them back until the German has been thoroughly beaten, compelled to disgorge, disarmed and forever rendered harmless. Anything less will be a victory for the Hun.

WM. E. SKEGGS.

## Only One Way Out—Berlin.

[Northwestern Christian Advocate.]

The fear engendered by the President's first note to Germany has been allayed by his second reply. In the interim between these two historic documents, the American public, sensible to the danger lurking in the "fourteen points," which the enemy seemed only too anxious to accept, raised unmistakable protest against slightest yielding. This cry amounted to a vast flood of demand that expressed itself in the two words, **Unconditional Surrender**. The public saw in the President's "points" a chance to play hide and seek; there was just enough indefiniteness lurking among and among them to suggest endless parleying, an opportunity to go and take, with the possibility of Germany emerging from the diplomatic battle in a fair state of preservation.

We say the President heard this cry, not only from 100,000,000 Americans, but he caught the echo from our Allies across the sea. He must have realized that in this multiplicity of words composing his first note danger lay.

It was therefore with grave concern that his second message was awaited. In it he caught himself. He closed up all loopholes, tightened all loose joints, strengthened the strands, sharpened the barbs and in every way put up a defense that seemed altogether proof against German attack. In that note President Wilson made it perfectly plain that no peace will be concluded with Germany until she has made an end of the Hohenzollern autocratic rule; conditions of evacuation and armistice must be left to the judgment and advice of Foch and Haig and Pershing and Diaz; and no armistice can be considered so long as the armed forces of Germany, on land and sea, "continue the illegal and inhumane practices which they persist in."

So we have been saved a possible humiliation, and the drive for complete and crushing victory is again well advanced. The incident was, after all, profitable. It gave the country a chance to say what it wanted, and it revealed the fine unanimity of spirit and demand as expressed in those two words, **Unconditional Surrender**, which shall continue to stand in the forefront as the world's victory slogan.

**There is only one way out—Berlin.**

## A Mother's Call for Unconditional Surrender.

St. Augustine, Fla., October 22.

Editor Manufacturers Record:

Your editorial "On to Berlin and Unconditional Surrender" is glorious. Can you not start or inaugurate a memorial to be signed by all the people of the Allied countries that there shall be no peace until Germany and Berlin are made to suffer.

I would suggest that the damnable Kaiser and his cohorts be caged and sent chained through all the Allied countries, and if there was anything left of them after that they be further punished. But let Belgium dictate the terms. We do not want any more notes.

Yours for the good of the cause, and may your great voice be heard clearer and louder for the cause of justice.

Faithfully yours,

SARA B. UNDERWOOD.

(Mrs. A. W.)

## U. S. Spells Unconditional Surrender.

[Northwestern Christian Advocate.]

We have reached the most critical stage of the great war. Many a patient has been lost at the convalescent stage. The world contest has about reached that period. Germany now sees she cannot win the war. She is not defeated, but is in process of defeat. Were the points of contest checked up to date, Germany would probably score higher than the Allies; but at the first touch of the whip she cries "Enough!"

What the Allies started out to do remain unfulfilled—the breaking of the spirit of Germany and her reduction to a condition of humility and repentance. Not one note of defeat has been sounded by the Kaiser. He still speaks grandiloquently of his loyal legions. They remain unbroken. Germany's fighting force remains intact. Militarism has not yet been disqualified in Germany.

Though an acceptance of the President's 14 principles may severely embarrass Germany, there is one thing she will have left—a fighting machine, an army unbroken, a navy untouched. The futility of physical power has not been quite proven. If the 14 principles can be boiled down into two words, unconditional surrender, well and good; if in the multiplicity of words they fall short of that result, the greatest moral victory of the ages fails of full fruition.

This is the danger. We heartily agree with Colonel Roosevelt that "peace problems should be discussed only with our Allies." If once an armistice is declared, if the boys at the front stack arms and for the time relax their strenuous effort, if the spirit for complete victory created over here through months of arduous education be dissipated, a resumption of hostilities in case Germany refuses to comply with every demand would be a most difficult accomplishment. This is hardly the time to bank the fires in the furnace.

Many a sinner kneeling at the old-fashioned Methodist altar became the solicitous regard of the preacher. The expected peace delayed its coming. Finally the preacher, after questioning, would say: "Brother, what you need is more conviction. Stay at the altar a while longer. When your conviction becomes pungent, when you give up all, the light will break." That is the situation with Germany. Her conscience has not suffered sufficiently. Her conviction is not deep enough. In modern parlance, to give up all means unconditional surrender. We believe that is the unanimous verdict of not only the American people, but all the nations concerned.

## Descriptive of Germany.

[Columbia (Tenn.) Daily Herald.]

If ever in conversation about Germany your vocabulary seems limited and you are unable to think of a word or phrase that will properly describe the Huns, here is a list used by Richard H. Edmonds, editor of the MANUFACTURERS RECORD, which might fit:

Assassins; murderers; rapists; manglers of children; bestial brutes whose crimes "sicken a tiger;" robbers who have looted homes and nations alike; destroyers of cathedrals; mutilators; bandits; criminals whose hands run red with human blood; despoilers; plunderers; destroyers of womanhood and civilization alike; pillagers; freebooters; looters; atheistic barbarians who would blot out Christianity; hypocrites; liars; murderers on the high seas; sharks; glotters over their own infamies; makers of holidays and medals to celebrate the murder of 1000 women and children and non-combatants; instigators of every vile devil-controlled mind and soul in neutral countries to poison the mind as they poison the wells; pirates; violators of every agreement as "scraps of paper," whose spoken or written contract is as worthless as a box of matches in hell; would-be looters and rulers who cut down fruit trees with the same ruthlessness that they poison wells; crucifiers of prisoners; bombers of hospitals.

The editorial in which these words and phrases were used by Mr. Edmonds concluded with the following question that contains a few more fitting expressions that may be useful at this time:

"And shall we talk peace with such scoundrels, whose crimes, whose turpitude, whose moral depravity and inherent vileness has made them the mental and moral prostitutes of all ages and the willing murderers of millions of men, women and children?"

We leave you to answer the question in your own words.

## Texas Says "Parley Not, But on to Berlin!"

Fort Worth, Tex., October 23.

Editor Manufacturers Record:

With supreme satisfaction and hearty accord I have read the sentiment expressed in your last two issues. You voice thereby the sentiment to a man of the people of this clime.

"Parley not, but on to Berlin!" is the cry of our people in this part of the country. The acts of the Texas and Oklahoma troops in this month is the real answer of the people in this section. If there are not enough men up to 46 to win and win right, then there are thousands of others down here who are ready, anxious and willing to go.

We punish with death devils down here who rape and murder women, and we cannot understand why a nation of mayhemists, defilers of churches, robbers, looters, thieves, liars, murderers and rapists on a wholesale scale should escape the just and condign punishment they so richly deserve.

Let peace, sweet peace, come only when these devils are whipped from their lairs and punished as their acts deserve, but no peace NOR TALK OF PEACE TO COME TILL THIS IS DONE.

Dr. Hillis strikes the exact sentiment and heart's desire of every man and woman whom we know. Even mothers' and wives who are paying the supreme sacrifice approve his every utterance.

On to Berlin, and leave nothing standing from the Rhine to that accursed place, unless they make an UNCONDITIONAL SURRENDER.

The men on the ground conducting this war know how to end it; let them do it their way, and then only will justice be done this horrified world.

H. D. PAYNE.

## Thinks Death Penalty Entirely Too Merciful for Kaiser.

Middletown, Conn., October 27.

Editor Manufacturers Record:

In reading one of the numerous excellent essays relating to the punishment that should be meted out to the greatest criminal the world ever knew, I am led to wonder at the strain of mercy which apparently you show in calling only for the death penalty to be dealt to the chief criminal, the Kaiser, which at most is but a momentary punishment.

In my judgment only such a punishment commensurate with his crimes can be meted out to him as may be most prolonged, and that he should, if it were possible, be made to live on forever, like the mythical Wandering Jew, that he might have the torture of forever having before him the agony caused by his manifold crimes.

Thomas Moore must have had in mind some such criminal when he wrote of the fate to which he would send the traitor of the Fire Worshipers, in that the ever having before him the agony caused by his manifold habitation, where

"—life's unblessed cup for him, should be drugged with treachery to the brim.

With hopes that but allure to fly, with joys that vanish while he sips;

Like Dead Sea fruits that tempt the eyes, then turn to ashes on the lips.

His country's curse: His children's shame: Outcast from virtue, peace and fame.

May he at last with lips of flame on the parched desert thirsting die. While lakes that shine in mockery high are fading off, untouched, untasted; like the once glorious hopes he blasted;

And when from earth his spirit flies, Just Prophet, let the damn'd one dwell: full in the sight of paradise, beholding Heaven, but feeling Hell."

Yours for unconditional surrender in Berlin,

STEPHEN F. SHERMAN.

## The Views of a Justice of Supreme Court of Maryland.

Chestertown, Md., October 21.

Editor Manufacturers Record:

The demand for unconditional surrender of the German armies, and of the German Government, to be followed by just indemnities to the Allied nations and reparation for the crimes perpetrated upon innocent men, women and children is the only demand which expresses the true measure of justice or which can satisfy the American people, the Congress of the United States and the President of the republic.

I believe that your paper has rendered invaluable service to the country in keeping steadily and fearlessly before it the principles upon which alone a just and lasting peace can be concluded. JAMES A. PEARCE.



### Why Germany Wants Peace.

By IRA M. PRICE in *The Standard*, one of the leading religious papers of Chicago.

Germany had a definite, well-planned scheme of her first dash for world supremacy. She has now already captured and secured control of more than four-fifths of the territory and peoples included in that first program.

In 1895 and 1911 her aims were published almost in detail. They included in the west the seizure and absorption of Holland, Belgium, Luxembourg, North France to a line drawn from the mouth of the Somme River southeast to Belfort on the border of southern Alsace near Switzerland, and all of German-speaking Switzerland; on the southeast, Austria-Hungary and the Balkans entire; on the east, Russian Poland, the provinces of Courland, Esthonia, Livonia and the three Russian principalities of Kovno, Vilna and Grodno. The total population of these countries outside of the German Empire is about 116,000,000. Add to these Turkey, with her 20,000,000, over whom Germany today has complete military control, and we have 136,000,000. To these add the 68,000,000 of Germany, and we have the immense total of 204,000,000 of human beings. By the reckonings of Cheradame ("The Pangerman Plot Unmasked," pp. 13 ff.) 77,000,000 are Germans and 127,000,000 are non-Germans.

Of this stupendous scheme of conquest Germany now holds and controls Belgium, North France—just a little less than she planned—Luxembourg, Austria-Hungary, her ally, and practically all the Balkans except Greece and Bulgaria. In Russia she secured nearly twice the territory originally marked out, including Finland, Ukraine and several Black Sea ports. Berlin gives her orders to all her allies and absolutely controls their armies. Even the Bolsheviks of Russia are at the command of the general staff on Koenigplatz in Berlin.

The so-called peace treaty signed at Brest-Litovsk was "made in Germany." Its purpose apparently was to break up all Russian opposition, to weaken the Allies and to allow the German octopus to seize all the territory her tentacles could reach. She has already reached far into European and Asiatic Russia, and regards the Brest-Litovsk treaty merely as a "scrap of paper."

Germany's "hint" for a peace conference, through her protegee, Austria-Hungary, is not made primarily because of lack of man-power, nor of economical distress, nor of exhaustion of resources, nor of acknowledgment of defeat, though all these may be crowding the issue to the front. But her supreme aim now is to hold what she has already conquered and consolidate it under a peace compact with the Allies, which she herself will regard merely as an armistice. If she could secure by a peace treaty all she now holds and controls on the southeast and east front she could well afford to withdraw her armies from Belgium, France and Luxembourg, and even for the present give back to France Alsace-Lorraine, wrested from her in 1871.

Such a move on the part of Germany might seem to some persons, even to some officials, as a magnanimous concession. But wait. See what that means. Germany now has under her thumb all Austria-Hungary, Serbia, Montenegro, Roumania, Turkey and an unmeasured amount of Russian territory and people. Not less than 200,000,000, or twice the population of the U. S. A., will be under her sway. It will take her 10 to 20 years thoroughly to organize these immense areas and populations into one Prussian empire. Then what will happen? The Hohenzollern dynasty wants no better opportunity to prepare for the realization of its great world conquest. Assuming that it is successful in amalgamating these peoples, in 20 years it will easily produce an army of 25,000,000 of men. These hosts of thoroughly drilled troops would be equipped with the most effective instruments and elements of destruction in all branches of service on and under water, on land and in the air, that the experiences of the present war and scientific knowledge can devise or invent. The armies of fighting men would be so overwhelming in numbers at the start that nothing would stop them; even as nothing, not even killing devices, can stop the advance of armies of grasshoppers on the Western plains.

With what ease in such a case could she recapture all the territory in the west which she apparently so willingly would now give as a concession to gain peace. Not only would she retake this, but she could push her millions of troops into ever country and land and make them her subjects and slaves.

Either this entire globe would be her prize, her

plunder, her possessions, within a short time or every civilized nation on earth would be compelled henceforth, by the menace of the new armies being developed under Prussian rule, to make its land an armed camp, a military machine of the most effective kind, preparatory to the next war. And that war Germany will provoke when "the day" arrives, just as truly and as inevitably as she precipitated this first dash for a specific goal for supremacy from Hamburg to the Persian Gulf.

Is this a vision or a dream? When Germany's world plans were published in 1895 and in 1911 the statement of the allied countries regarded them as the products of the imaginations of enthusiastic Pan-Germans. They were not taken seriously in any allied country. Here and there individuals, like Lord Roberts in England and Cheradame in France, saw the potential storm, though no larger than a man's hand. But their alarms were practically unheeded and the peace-loving nations could not even suspect that such a daring scheme would be launched on the world. When Germany was ready she decreed "the day" and made the first dash—planned for more than a score of years—to secure her first objectives before her foes could mobilize their practically unprepared armies (except France). The results we have all seen.

Now, to consider a conference for peace on any terms short of those laid down by President Wilson and approved by the Allies would be a crime against all the world for all the future. To accept a German peace now would wipe out the tremendous sacrifice of men, money and material already made during the last four years and allow Prussianism, with all its policies of militarism, of lawlessness and of tyranny, to organize another and more awful scheme of conquest to be put into operation in the next generation.

The smashing of the Prussian military system, with all its political affinities, is the only safe and sure prerequisite to the consideration of any discussion of peace terms.

**There should be such a series of victories on all the fronts and in Germany itself as shall wholly wipe out Prussianism and its leaders and free the German people themselves from the tyranny that has defrauded them of their freedom, their liberty, their property and their sons. Until that end has been reached every "peace offensive" from the Central Powers or their friends should be unhesitatingly repulsed.**

### A Peace That Will Be Satisfactory to America.

[The Hastings (Fla.) Herald.]

Editor Richard H. Edmonds of the MANUFACTURERS RECORD has summarized the terms upon which peace should be granted to the Central Powers by the Allies.

Believing his summary will be approved by every true American, we give it herewith:

"Unconditional surrender of armies and navies.

"The death penalty inflicted upon the Kaiser and every male member of the Hohenzollern and Hapsburg families who have been parties to this war, and every military and political leader responsible for bringing on this world crime.

"Full payment in ships or money for every ship sunk by the German submarines.

"Restoration in money or materials of every product, whether of art, or machinery, or foodstuffs, or raw material, or jewelry, or cars, or locomotives, or securities, or money, of which Germany has looted other countries.

"A financial indemnity to the family of every soldier who has been murdered or permanently invalidated in the armies of America and our Allies, and a similar pension or payment to every man and woman from the overrun countries who have been enslaved by Germany and made to work on its farms or in its factories.

"The repudiation or confiscation of every dollar of bonded indebtedness of every kind outstanding against Germany, Austria, Turkey and Bulgaria and held by any of the citizens of these countries, the total amount of these bonds to be used towards the payment of the cost of the war to the Allies. To this should be added an additional indemnity sufficient to cover all the expenditures made in America and our Allies in carrying on the war.

"Turkey forever banished from Europe.

"Any suggestion of 'neurotic sympathy' for such unspeakable criminals would show a flabbiness of moral strength, a weakness of moral backbone, which for centuries to come would lessen the moral standard of all the world."

### Must Solidly Stand for Full Reparation and Punishment—Then Great After-War Problems Will Come Up.

Stuart, Fla., October 21.

Editor *Manufacturers Record*:

I have received a reprint of editorials of the MANUFACTURERS RECORD, and the Lilly Company requests that I write you if I am pleased with the reprinting of the articles. This seems to imply that I might not be pleased, and seems like a joke worthy of Mark Twain at his best.

Had I been asked four years ago what one of all our American periodicals would most appeal to me, I would never even have thought of the MANUFACTURERS RECORD. I am not a manufacturer, nor even a business man, and the MANUFACTURERS RECORD is a specialty magazine. As a periodical striving from the outbreak of the war, sanely, strenuously and with foresight, to stimulate patriotism and urge preparedness for our safety, and in wise, unselfish, persistent effort to awaken our people to the great danger menacing our nation, and to speed up our Government since we entered the war, the MANUFACTURERS RECORD stands among other periodicals as the great Theodore Roosevelt stands among other individual good, patriotic Americans—not merely "head and shoulders," but clear to the hips above them. A greater compliment is impossible, but you deserve this for the honorable part you have taken in the war.

The horrible German power and people seem to be breaking down. Just how bad conditions are in their army and among their fiendish people we do not know, nor do we know just how strong General Foch is to continue his glorious victory at this unfavorable season, but whether a collapse may come any day now, or whether we must fight on for another year, victory for us is certain.

Another thought impresses me strongly: To those of us who are not actively engaged in manufacturing it might seem now that our interest in the MANUFACTURERS RECORD would wane, but this is far from the truth.

From him who has done much one may safely hope for more. You have been in from the first, and are not finishing a great fight, but there remain two great fights of equal interest to your admirers. The first is to make the sentiment and determination of our people such as will compel our peace commissioners to stand solidly with France and England to get full reparation for all ravished peoples, and impose adequate punishment on the chief of all criminals, high and low. Neglect in doing this would bring the same disgrace on a vast scale to civilized nations as is brought on a smaller scale to a court when a particularly vile criminal is freed by official corruption or maudlin sympathy.

And when peace is established we will face a struggle of a different nature, but as great as any we have been through. Tremendous opportunities for trade will be open in the new world. It will be up to us to play a greater part than any other nation, even England. But the wage problem due to the war, the money problem due to special taxation of the industrial leaders, the socialistic experiments we have made as war measures and all the great tasks of readjustment to peace conditions will tax the best minds of the nation. In these coming struggles our interest in the MANUFACTURERS RECORD will increase rather than grow less.

Sincerely yours,

O. P. MAXSON, M.D.

### For "Eternal Justice Sake" We Fight.

The Warren Record.

Warrenton, N. C., October 14.

Editor *Manufacturers Record*:

We feel that it would be a blow to the patriotism of Warren and Vance and Halifax and the Halifax Times if the vibrant patriotism and progressive Americanism of the MANUFACTURERS RECORD was not made available to our readers through the republication courtesy allowed by your publication.

Accept my sincere good wishes in the great work which you are doing—work which is lasting and for eternal justice's sake. Enter us at once upon the mailing list and enable us to further distribute and personally enjoy the articles from the pen of Mr. Edmonds and the red-blooded patriotism of every issue.

W. BRODIE JONES, Editor.

## Fear that Pacifist Leanings Would Bring About Peace Without Punishment.

Prospect House,  
Niagara Falls, N. Y., October 25.

Editor *Manufacturers Record*:

Accept my hearty congratulations for your vigorous and manly stand against an unwise and premature peace suggested by a number of daily editors and public men. I wish you would keep up the good work and arouse the public sentiment against such hasty and criminal peace action.

I am enclosing a copy of a letter which I wrote to Hon. William McAdoo, Secretary of Treasury, in reference to the Fourth Liberty Loan, in which I know you will be interested.

JOHN R. MARDICK.

Mr. Mardick's letter is as follows:

Prospect House,  
Niagara Falls, N. Y., October 11.

Hon. William G. McAdoo,  
Secretary of the Treasury,

Washington, D. C.:

Dear Sir—Re: Fourth Liberty Loan. One reason for the lack of interest of the public in the fourth loan is the belief of a great number that the present Administration is pacifist at heart and that it would not lose the first opportunity to conclude a premature peace without just reparation and condign punishment for the unspeakable crimes committed by Germany and her allies against humanity. The people think that now that blood is shed and millions have sacrificed their lives for upholding honor and decency against the assassins and ravagers of Belgium, France, Serbia and Armenia, they should not go scot free, without bringing the arch-conspirators and plotters to the gallows according to common law.

There is nothing in the President's messages or proclamations to assure the public about reparation and proper punishment of the guilty individuals. On the other hand, there is a tendency to let bygones be bygones and a readiness to shake hands with the nefarious assassins and sit at the same table as of old. During these periods of peace parleys and note writing, unless the public is otherwise informed by vigorous and manly stand by the present Administration, the same slackness about the fourth loan will continue and perhaps it may prove to be altogether a failure.

The public opinion all over the world is intensely aroused by the crimes and depredations of the Germans and Turks. Hence, with anything short of complete destruction of the Prussian armies and intriguers of these countries, there may be great political upheavals and lamentable acts of personal vengeance all over the world as soon as the soldiers return from the battle fronts.

I hope that the statesmen will be wise enough to see the undercurrent of public feeling and act accordingly.

Respectfully yours,

JOHN R. MARDICK.

## Unconditional Surrender Demanded by a Civil War Veteran.

New York City, October 23.

Editor *Manufacturers Record*:

I was certainly very much pleased to read your message to President Wilson as published in the New York Sun, and I want to congratulate you on the spirit of your forcible argument.

I hope you will keep on pounding the German hordes and fight for unconditional surrender, and nothing else. Let us fight those brutal demons to the end. Keep up the battle in the future as you have in the past. Give the German autocrats hell for all time to come.

I hope Mr. Wilson will not write any more notes to the scoundrels who have brought such suffering and misery on the whole world.

If the articles published in your valuable paper could only be read by all our people and the peoples of Europe there would be a different thought by all. Please keep up your work; fire shot and shell in the ranks of the pacifists.

Good luck to you, and more of it; hit the murderous devils right between the eyes.

I had the honor to serve with General Grant during the Civil War, and I hope, and hope hard, that we never will stop this brutal war till unconditional surrender is accomplished. Speak for unconditional surrender as General Grant did. Then, and not till then, will the world have a lasting peace.

W. R. WHITNEY.

## Not Very Friendly.

[Anniston (Ala.) Star.]

Judging from a catalogue of crimes he has compiled against them, one might be left to infer that Editor Richard H. Edmonds of the Baltimore *MANUFACTURERS RECORD* is not on very friendly terms with the Kaiser and his subjects. "To grant Germany and its allies peace would be to welcome back to civilization without punishment nations which," he says, "can be truthfully characterized as composed of liars, sharks, pirates, assassins, murderers, rapists, mutilators, bandits, despoilers, plunderers, pillagers, freebooters; looters, hypocrites and manglers of children."

Nor is that all. One word is not enough, in the opinion of Mr. Edmonds, to describe the depravity to which the latter-day Huns have sunk; so he proceeds further to speak of them as—

"Destroyers of cathedrals; bestial brutes whose crimes 'sicken a tiger'; robbers who have looted homes and nations alike; criminals whose hands run red with human blood; destroyers of womanhood and civilization alike; atheistic barbarians who would blot out Christianity; murderers on the high seas; glowers over their own infamies; crucifiers of prisoners and bombers of Red Cross hospitals; makers of holidays to celebrate the murder of 1000 women and children and non-combatants; instigators of every vile devil-controlled mind and soul in neutral countries to poison the mind as they poison the wells; violators of every agreement as 'scraps of paper,' whose spoken or written contract is as worthless as a box of matches in hell; would-be world looters who cut down fruit trees with the same ruthlessness that they poison wells," etc.

"And shall we make peace with such scoundrels, whose crimes, whose turpitude, whose moral depravity and inherent vileness has made them the mental and moral prostitutes of all ages, and the willing murderers of millions of men, women and children?" he asks.

"May God forbid!" says Mr. Edmonds, in answering his own question, and the Anniston Star is rather disposed to agree with him.

## Justice Would Bring Full Punishment to Germany, Though Some Flabby Minds Try to Make Justice Seem Vengeance.

Millburn, N. J., October 24.

Editor *Manufacturers Record*:

It goes without saying that a righteous and just peace, if one can be devised, would be the best thing that could happen to the whole world, including Germany (meaning the nation). At the same time, such a peace is the last thing that Germany and a good many people outside of Germany, I fear, desire. In such a peace reparation and restitution will be carried as far as is humanly possible, of course, but as for revenge—well, we have it on high authority, none other than the Christ you so often quote, that we should not avenge ourselves, that "vengeance is mine, saith the Lord, I will repay."

"Would it not be well to show that ours is not the German spirit, by sticking to justice and talking less of vengeance? Is it pro-German to suggest it?"

STEPHEN BELL.

We have never seen anyone suggesting vengeance, but everybody who is honest-hearted demands justice, and justice means full measure of punishment to criminals. Anyone who tries to indicate otherwise is coming dangerously near to doing what Germany desires, and that is to create the impression that justice would be vengeance. Mr. Bell does not seem to be very well posted on Biblical quotations.

## Germans Pray, Prey, Promise and Prevaricate. In Other Words, Are Hypocritical Thieves and Liars.

Sabine Tram Co.,

Deweyville, Tex., October 19.

Editor *Manufacturers Record*:

Please accept thanks from my friends and myself for the copy of the *MANUFACTURERS RECORD* reprint of October 10. We are with you, men, women and children, in your views on Hunnish Hunnism, and we believe that your paper is the greatest exponent of "American Americanism" extant, and will be referred to as such as long as "America" breeds Americans.

No, we do not believe the "United States" went into this war to negotiate peace. On the contrary, she went into it to make peace, and has sent about 2,000,000 peacemakers to France for that purpose, and will send as many more as may be needed.

I can see through the Hun's peace (?) move as

plain as the man who made it. While I admit they want "peace," they don't want an "Allies peace." Their great aim is to keep praying, preying, promising and prevaricating with the hope of lulling the Allies into relaxing their vigilance, then, presto, one big massacre!

I know the Hun. I spent five months as a volunteer in the French army under Colonel Gordon in '70 and '71, and I have also spent eight months in German ships. The Hun believes everybody else is just like him except in one thing; he thinks he is smarter than anyone else, but believes that they are just as crooked as he is. I never knew one to be honest unless he was forced to be. I never knew one to tell the truth unless he was compelled to, and I never saw one fight unless he was sure he had the advantage. I know the Hun. The egotistical idiot believes that he can inveigle the Allies into separate peace—watch him try Italy.

I am getting pretty well up in years, but I sure hope I live long enough to see the whole damn Potsdam gang hang—that's all we need, a "g" on the end of Hun.

CAPT. D. G. PRICE.

Veteran Civil and Spanish Wars.

## Secretary of State Lansing On Germany

In describing Germany in a recent address, Secretary Lansing, who has had abundant opportunity to study German methods, said:

"Americans, even among those intellectually equipped, have but vague ideas of the perverted mental attitude which made Prussianism possible, and of the reason why a compromise founded on the Prussian conception of international rights must not even be considered."

"I shall not attempt to enter upon a recital of the horrible brutalities perpetrated by the German armies in the prosecution of the war. They have been too often told to require repetition. It would be the needless reading of a catalog of black deeds of cruelty which would sicken a tiger by a nation which claims not only to be moral and possessed of humane sentiments, but to be actually commissioned by the Supreme Being to carry out His will."

"German diplomacy and intrigue, as now practiced, must be proclaimed an international crime, and suppressed forever. The philosophy of the 'superman' and of world mastery must die discredited. The evil influences which have so long poisoned the minds of the German people must lose their potency."

Secretary Lansing's full address should just now be read by every man and woman in America. It will be found in a pamphlet published under the title:

## "Germany—The World's Blackest Criminal"

15 Cents Per Copy

100 or More, 10 Cents Per Copy

Published by  
**MANUFACTURERS RECORD PUBLISHING CO.**  
Baltimore, Md.



# FIFTY YEARS OF PROGRESS IN THE LEATHER BELTING BUSINESS

**From a Three-Man Factory to a World-Famed Enterprise.**

**FACTORS IN EVOLUTION OF "DUXBAK" BELTING.**

The Charles A. Schieren Company, Its Growth and Continuous Success—A Broad Policy Closely Adhered To—Quality the Cornerstone of Its Prosperity—Its Dixie Tannery and Its Products—Its World-Wide Distribution of Its Belting—Its Place in War Work—Its Service to Trade and Customers.

THE history of the tanning industry and leather trades in New York is interesting because of the greatness of its development and the constancy with which for 185 years it has been centered in the locality still known by its original characterization as "the Swamp."

When the Dutch first settled on the Island of Manhattan they located their city of New Amsterdam in the lower end of the island, and soon started such industries as seemed appropriate to the resources and conditions of the island. The chief industry was the buying and shipping of furs and skins of various kinds.

The trade of the tanner was one of the first introduced on the island, and the tanners located on Broad street until the growth of population around the tanneries led to a decree from Governor Stuyvesant and his Council banishing the industry beyond the city wall (Wall street) to Maiden Lane, near the East River. There it remained till, under the British Colonial management, this region, too, became encroached upon by residences and the authorities showed a desire to push the industry still further afield.

## Genesis of "The Swamp."

The chief necessity for a favorable locality for tanning upon the best methods was and is an ample supply of oak bark, the indispensable material for the manufacture of the best quality of leather. In 1734 Jacobus Roosevelt was looking about for an available site for tanning. Northeast of the city, and not far east from the Commons, was a large body of marshy ground covered by great and tangled briar patches. But all around was a considerable forest of oak trees with a supply of bark which was of a quality suitable to the manufacture of leather. He bought the tract, selected a site for his own tannery, laid the plot out into 50 generous lots, and sold them, as demand developed, to other tanners. The tanning industry was centered on this tract and flourished for a long time until the bark was used up, and the industry was banished from "the Swamp." But though the tanneries were removed, the tanners stayed, and the

other branches of leather activity remained, many houses of national and even international fame making their homes there.

## A Half Century of Schieren Effort.

Fifty years of progress, culminating in unquestioned leadership of the important branch of industry in which it is engaged, is the record of the Charles A. Schieren Company, manufacturers of leather belting.

Its present eminence is due to the evolution of a settled purpose on the part of the founder to earn success by deserving it, to make the best belt it was possible to make, and in that way and by reasonable prices and fair treatment to satisfy every customer. It was

the man behind the enterprise. It began in small quarters at 10 Gold street, and remained there until 1881, since which time it has been at Cliff and Ferry streets, and finally built the present large and imposing building at that intersection for use as offices, salesrooms and factory, a fitting home for what has grown to be the foremost enterprise in the leather belting industry, famed for its product of highest grade and for the world-wide scope of its business.

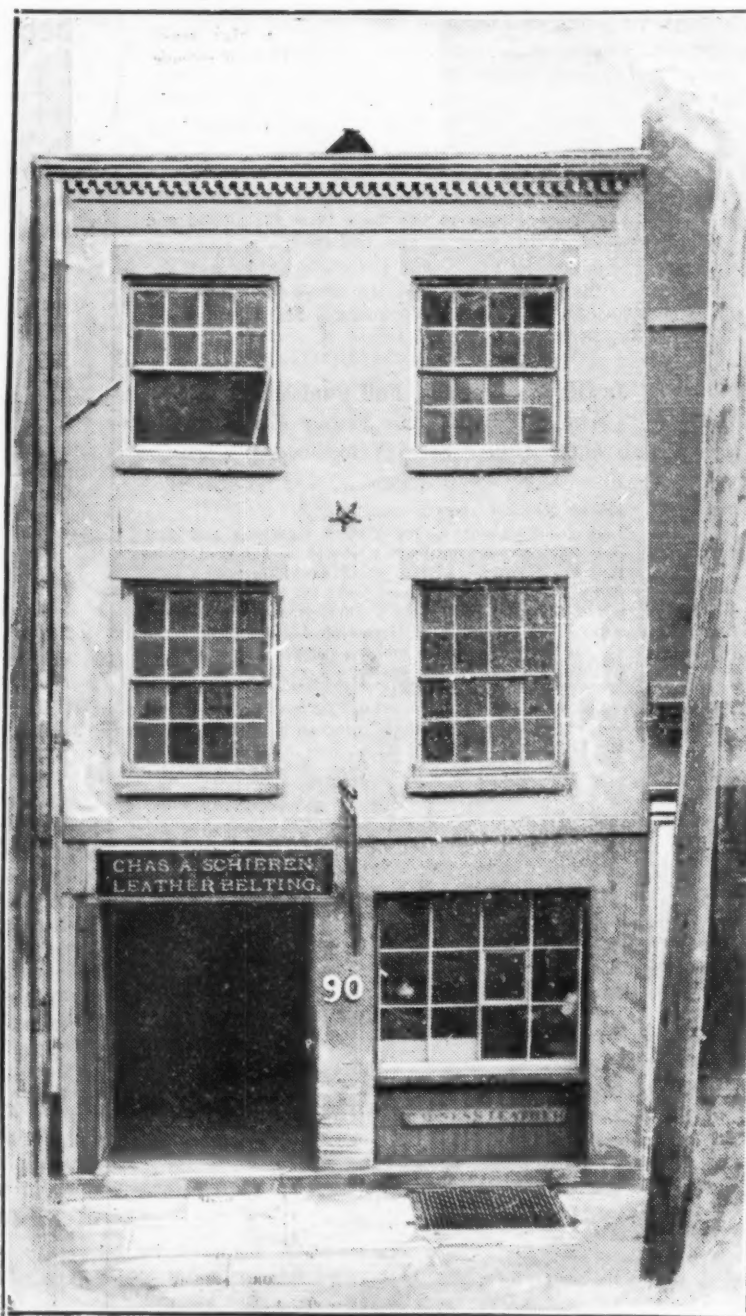
At the base of this development there has been, on the part of the founder, and his sons, who now conduct the enterprise, an intelligent realization that the driving belt has a function of the highest importance

in the success and efficiency of a manufacturing plant. The regularity and speed of operation of the plant are in exact ratio to the faithfulness or failure of the belt to perform its function. Therefore, the serious and ceaseless efforts of Charles Adolph Schieren, who founded the business, and his sons, who have succeeded him, to improve the belt to a degree of durability and reliability never before attained, has added most materially to the accomplished horsepower of manufacturing plants all over the world.

## Founding the Dixie Tannery.

To provide itself with the resources and equipment required to secure the highest development of driving-belt usefulness the Schieren Company sought out a locality where it could secure the largest and most continuous supply of oak bark to enable it to use the old-fashioned, long-time pure oak-bark tannage, which is still superior to all other methods of tanning leather for beltings. The locality was found at Bristol, Tennessee, in the Holston Valley, 1800 feet above sea level, surrounded by the Holston Mountains. Here the Schieren Company established, in 1893, the Dixie Tannery, a plant which has grown and developed in size, capacity and equipment to keep up with a demand that grows year by year for the superior product of the Schieren factory. The bark of each variety of oak has an especial adaptation to some particular grade of leather, but for belting none other equals that of the rock oak, of which the chief habitat is found in the vast forests of the Appalachian chain of mountains on the boundary line of Tennessee and Virginia and southward into North Carolina. The Dixie Tannery is central to this extensive region of bark supply, the bringing in of which employs numberless carts, which come in endless procession to the tannery in early spring,

laden with rich oak bark which has been stripped from the trees by hardy mountaineers, and which is dried and seasoned for the use of the tannery during the ensuing year. To the tannery from other directions come trains of freight cars loaded with hides from the slaughter-houses of Kansas City and Chicago.



THE OLD STORE, 10 GOLD STREET, 1881.

a small business when it began, but the founder, Charles A. Schieren, was a man of high ideals and strong personality, who never swerved from his programme of probity and efficiency. So that, although he began the business in 1808 with only two men to help him, his success was forecast by the character of

### The Tanning of Belt Leather.

The processes of cleansing, liming, "bating" (to remove the lime), and then the various tanning processes, consume 120 days to bring it to the condition of leather fit to use as the raw material for belting.

Taken from the vats, the hides are washed to remove every particle of tan bark and then dried in a darkened loft with very little heat, after having been oiled on the grain side. Each hide is then cut into widths according to its grade and weight. The bellies, shoulders and all flabby or imperfect leather are thrown out for shoe purposes, and the central portion or heart of the hide reserved for belting. The solid leather is carefully shaved on the flesh side, in huge machines operating somewhat on the principle of a milling machine, and is then scoured by other machinery for the purpose of opening up the pores for the reception of the stuffing of cod oil and pure beef tallow, by which the leather is preserved and made suitable for the transmission of power. This stuffing process, which occupies several hours in the Schieren process, imparts to the hide the long life which is a predominant feature of Schieren belting. When this is completed the leather is allowed to dry, brushed off, packed in bundles, and shipped to the New York factory.

Here follow the manufacturing processes by which this leather of Dixie tannage is converted into the famous "Duxbak" belting, the ultimate result of fifty years of progressive striving to produce the very highest grade of belting which it is possible to make. There has been a mastery of problems to adapt the belts to the progressive needs of modern industry—the introduction, for instance, of a fireless belt to supplant the old riveted belt, found to be unequal to the requirements of electric-light plants; the "Excelsior Belt," introduced by the company in 1880, which was the first dynamo belt made with extra dressing to render the belt more waterproof and less susceptible to atmospheric changes; the "Electric Belt," the original black belt, the object of the blacking being to fill the pores and protect the belt from damage from the mineral oil which is prevalent where high-speed electric-light engines are used; the "Perforated Belt," patented in 1888 by the Schieren Company, and especially adapted to electric-light and street-railway service.

### Extra Belts for Extra Service.

A specialty of the Schieren production is the manufacture of extra wide main driving belts for all kinds of factories and mills. The ability to do this with undeviating efficiency is maintained by the use of special machinery backed by 50 years of belt-making experience.

The highest culmination of this half century of effort is found in the world-famous "Duxbak" belting, a product the unapproached superiority of which has met world-wide recognition. It is the last expression of concentrated effort expended on the problem of quality, the leather made from the choice portion of the most carefully selected hides, the stuffing and dressing performed so as to secure unprecedented results in durability, a belt that sticks and holds, that functions ceaselessly, that makes its trade-mark name of "Duxbak" the international synonym for the highest belting effort, and an important factor in the repute that places America first in quality production of the necessities of industry.

### The Achievements of "Duxbak."

From the correspondence files of the Schieren Company volumes could be compiled in support of the com-

tention that "Duxbak" is a service belt without a peer, and fully sustains the Schieren Company's claims that it is of "perfect construction from the toughest part of good hides, insuring maximum load capacity," and its special treatment rendering it immune to water and oils, and cites, among a large number of examples, a friction drive that "has given two years' service in a large hardwood mill without sign of stretch or wear." Only a few days ago one of the leading New York newspapers put in a new press of larger capacity and chain-driven in place of a press which a "Duxbak" belt had driven for approximately three years with the highest satisfaction to the newspaper company. The belt was in excellent condition, showing no kind of wear, and was sold by the newspaper to a satisfied buyer at a price about 50 per cent. greater than had been originally paid for it when new. It had stood without a falter the exacting test of running the press of a metropolitan paper, demonstrating its reliability and power, and sold for a price which, while partially

cially in the Polytechnic Institute, afterward broadening his knowledge by much foreign travel—in Europe, Cuba and Mexico.

His first induction into business life was as an apprentice in his father's tannery, from which he went into the position of a traveling salesman for seven years. He has always recognized that his vocation in life was to be the making, sale and distribution of leather belting, and from boyhood aspired to the mastery of all knowledge possible to be acquired about that business. So that when he came to be its executive he was fully efficient to secure the permanent progress of a business ever expanding as the result of a product into which every possible ingredient of expert knowledge had been put.

### Honors and Awards.

Medals and awards have come to the Schieren belts wherever placed in competitive exhibition. The American Institute honored them twelve times between 1893 and 1901. At the Centennial Exposition of 1876; World's Columbian Exposition, Chicago, 1893; Atlanta, 1895; Nashville, 1897; Omaha, 1898; Liverpool, 1886; Paris, 1889 and 1900; the Pan-American Exposition, Buffalo, 1901, in some instances taking both the gold and silver medals at the same exposition. More recent honors were the Grand Prix highest awards at Brussels, 1910, and at Turin, 1911, and the gold medal of the Panama-Pacific Exposition in 1915.

The confident knowledge of Mr. Schieren, now president of the Charles A. Schieren Company, that the product of the company was of a quality able to compete, to its advantage, with any made anywhere, coupled with his observations abroad, led him to the investigation of the possibilities of export trade, with the result that branches were established at several European points, while the domestic trade is conveniently reached through branch houses at Atlanta, Ga.; Boston, Mass.; Chicago, Ill.; Cleveland, Ohio; Detroit, Mich.; Denver, Col.; Kansas City, Mo.; Memphis, Tenn.; New Orleans, La.; Philadelphia and Pittsburgh, Pa.; St. Louis, Mo.; Salt Lake City, Utah; Seattle, Wash., and Dallas, Tex., each of which is the center of an active and growing business covering its trade territory.

### The Schieren Export Trade.

In those days, when American business thought, outside of its concentration on the problem of winning the war, is chiefly occupied with the related question of expansion of American business with foreign lands, the export question looms large. In this the Schieren house is especially fortunate in having made a most substantial beginning before we entered the conflict and has established the most favorable relations in all parts of the world where belting is in use. Somewhat temporarily hampered in facilities for transportation to European ports, the company is centering its attention very largely in supplying customers and adding to their number in South America, the West Indies, South Africa, the Dutch East Indies and Hawaii. In the Hawaiian Islands one of the company's most prominent representatives is now en route to the Philippines, where the Company already has branches; to China, where, except at Shanghai, the Company has no established branch; to the Straits Settlements, the Dutch East Indies and British India. In these countries, and wherever introduced, the Schieren "Duxbak" belting has established itself as premier in quality, load capacity and durability. Its standard quality, everywhere recognized, commands it to favor as an



PRESENT HOME OF THE CHAS. A. SCHIEREN CO.  
30-38 FERRY STREET, NEW YORK CITY.

reflecting the general advance in commodity prices, also testified to the undeteriorated excellence of the belt after three years of constant wear.

### The Personal Equation.

Of the problem of progress and success worked out in the 50 years of Schieren development the personal equation has been ever a controlling one. The founder, Charles A. Schieren, impressed upon the enterprise his high ideals, scrupulously maintained. He was a man of mark not only in the business world, but also as a citizen of high purpose and achievement. As the Mayor of Brooklyn in its last years of municipal independence prior to its merger in the greater city, he is remembered for an administration marked by undeviating devotion to the best interest of that city. He died March 10, 1915, under the seal of approval of the business world and his fellow-citizens, as a man who had done his part with faithfulness and honor and had earned, as well as deserved, universal respect.

His son, Charles A. Schieren, who succeeded to the active executive management of the business, came to it fully equipped in every respect for the duties that thus devolve upon him. He was born May 8, 1863, in Brooklyn, was educated in the schools there, and espe-



### Why Germany Wants Peace.

By IRA M. PRICE in *The Standard*, one of the leading religious papers of Chicago.

Germany had a definite, well-planned scheme of her first dash for world supremacy. She has now already captured and secured control of more than four-fifths of the territory and peoples included in that first program.

In 1865 and 1911 her aims were published almost in detail. They included in the west the seizure and absorption of Holland, Belgium, Luxemburg, North France to a line drawn from the mouth of the Somme River southeast to Belfort on the border of southern Alsace near Switzerland, and all of German-speaking Switzerland; on the southeast, Austria-Hungary and the Balkans entire; on the east, Russian Poland, the provinces of Courland, Esthonia, Livonia and the three Russian principalities of Kovno, Vilna and Grodno. The total population of these countries outside of the German Empire is about 116,000,000. Add to these Turkey, with her 20,000,000, over whom Germany today has complete military control, and we have 136,000,000. To these add the 68,000,000 of Germany, and we have the immense total of 204,000,000 or human beings. By the reckonings of Cheradame ("The Pangerman Plot Unmasked," pp. 13 ff.) 77,000,000 are Germans and 127,000,000 are non-Germans.

Of this stupendous scheme of conquest Germany now holds and controls Belgium, North France—just a little less than she planned—Luxemburg, Austria-Hungary, her ally, and practically all the Balkans except Greece and Bulgaria. In Russia she secured nearly twice the territory originally marked out, including Finland, Ukraine and several Black Sea ports. Berlin gives her orders to all her allies and absolutely controls their armies. Even the Bolsheviks of Russia are at the command of the general staff on Koenigsplatz in Berlin.

The so-called peace treaty signed at Brest-Litovsk was "made in Germany." Its purpose apparently was to break up all Russian opposition, to weaken the Allies and to allow the German octopus to seize all the territory her tentacles could reach. She has already reached far into European and Asiatic Russia, and regards the Brest-Litovsk treaty merely as a "scrap of paper."

Germany's "hint" for a peace conference, through her protegee, Austria-Hungary, is not made primarily because of lack of man-power, nor of economical distress, nor of exhaustion of resources, nor of acknowledgment of defeat, though all these may be crowding the issue to the front. But her supreme aim now is to hold what she has already conquered and consolidate it under a peace compact with the Allies, which she herself will regard merely as an armistice. If she could secure by a peace treaty all she now holds and controls on the southeast and east front she could well afford to withdraw her armies from Belgium, France and Luxemburg, and even for the present give back to France Alsace-Lorraine, wrested from her in 1871.

Such a move on the part of Germany might seem to some persons, even to some officials, as a magnanimous concession. But wait. See what that means. Germany now has under her thumb all Austria-Hungary, Serbia, Montenegro, Roumania, Turkey and an unmeasured amount of Russian territory and people. Not less than 200,000,000, or twice the population of the U. S. A., will be under her sway. It will take her 10 to 20 years thoroughly to organize these immense areas and populations into one Prussian empire. Then what will happen? The Hohenzollern dynasty wants no better opportunity to prepare for the realization of its great world conquest. Assuming that it is successful in amalgamating these peoples, in 20 years it will easily produce an army of 25,000,000 of men. These hosts of thoroughly drilled troops would be equipped with the most effective instruments and elements of destruction in all branches of service on and under water, on land and in the air, that the experiences of the present war and scientific knowledge can devise or invent. The armies of fighting men would be so overwhelming in numbers at the start that nothing would stop them; even as nothing, not even killing devices, can stop the advance of armies of grasshoppers on the Western plains.

With what ease in such a case could she recapture all the territory in the west which she apparently so willingly would now give as a concession to gain peace. Not only would she retake this, but she could push her millions of troops into every country and land and make them her subjects and slaves.

Either this entire globe would be her prize, her

plunder, her possessions, within a short time or every civilized nation on earth would be compelled henceforth, by the menace of the new armies being developed under Prussian rule, to make its land an armed camp, a military machine of the most effective kind, preparatory to the next war. And that war Germany will provoke when "the day" arrives, just as truly and as inevitably as she precipitated this first dash for a specific goal for supremacy from Hamburg to the Persian Gulf.

Is this a vision or a dream? When Germany's world plans were published in 1895 and in 1911 the statement of the allied countries regarded them as the products of the imaginations of enthusiastic Pan-Germans. They were not taken seriously in any allied country. Here and there individuals, like Lord Roberts in England and Cheradame in France, saw the potential storm, though no larger than a man's hand. But their alarms were practically unheeded and the peace-loving nations could not even suspect that such a daring scheme would be launched on the world. When Germany was ready she decreed "the day" and made the first dash—planned for more than a score of years—to secure her first objectives before her foes could mobilize their practically unprepared armies (except France). The results we have all seen.

Now, to consider a conference for peace on any terms short of those laid down by President Wilson and approved by the Allies would be a crime against all the world for all the future. To accept a German peace now would wipe out the tremendous sacrifice of men, money and material already made during the last four years and allow Prussianism, with all its policies of militarism, of lawlessness and of tyranny, to organize another and more awful scheme of conquest to be put into operation in the next generation.

The smashing of the Prussian military system, with all its political affinities, is the only safe and sure prerequisite to the consideration of any discussion of peace terms.

**There should be such a series of victories on all the fronts and in Germany itself as shall wholly wipe out Prussianism and its leaders and free the German people themselves from the tyranny that has defrauded them of their freedom, their liberty, their property and their sons. Until that end has been reached every "peace offensive" from the Central Powers or their friends should be unhesitatingly repulsed.**

### A Peace That Will Be Satisfactory to America.

[The Hastings (Fla.) Herald.]

Editor Richard H. Edmonds of the MANUFACTURERS RECORD has summarized the terms upon which peace should be granted to the Central Powers by the Allies.

Believing his summary will be approved by every true American, we give it herewith:

"Unconditional surrender of armies and navies.

"The death penalty inflicted upon the Kaiser and every male member of the Hohenzollern and Hapsburg families who have been parties to this war, and every military and political leader responsible for bringing on this world crime.

"Full payment in ships or money for every ship sunk by the German submarines.

"Restoration in money or materials of every product, whether of art, or machinery, or foodstuffs, or raw material, or jewelry, or cars, or locomotives, or securities, or money, of which Germany has looted other countries.

"A financial indemnity to the family of every soldier who has been murdered or permanently invalidated in the armies of America and our Allies, and a similar pension or payment to every man and woman from the overrun countries who have been enslaved by Germany and made to work on its farms or in its factories.

"The repudiation or confiscation of every dollar of bonded indebtedness of every kind outstanding against Germany, Austria, Turkey and Bulgaria and held by any of the citizens of these countries, the total amount of these bonds to be used towards the payment of the cost of the war to the Allies. To this should be added an additional indemnity sufficient to cover all the expenditures made in America and our Allies in carrying on the war.

"Turkey forever banished from Europe.

"Any suggestion of 'neurotic sympathy' for such unspeakable criminals would show a flabbiness of moral strength, a weakness of moral backbone, which for centuries to come would lessen the moral standard of all the world."

### Must Solidly Stand for Full Reparation and Punishment—Then Great After-War Problems Will Come Up.

Stuart, Fla., October 21.

Editor *Manufacturers Record*:

I have received a reprint of editorials of the MANUFACTURERS RECORD, and the Lilly Company requests that I write you if I am pleased with the reprinting of the articles. This seems to imply that I might not be pleased, and seems like a joke worthy of Mark Twain at his best.

Had I been asked four years ago what one of all our American periodicals would most appeal to me, I would never even have thought of the MANUFACTURERS RECORD. I am not a manufacturer, nor even a business man, and the MANUFACTURERS RECORD is a specialty magazine. As a periodical striving from the outbreak of the war, sanely, strenuously and with foresight, to stimulate patriotism and urge preparedness for our safety, and in wise, unselfish, persistent effort to awaken our people to the great danger menacing our nation, and to speed up our Government since we entered the war, the MANUFACTURERS RECORD stands among other periodicals as the great Theodore Roosevelt stands among other individual good, patriotic Americans—not merely "head and shoulders," but clear to the hips above them. A greater compliment is impossible, but you deserve this for the honorable part you have taken in the war.

The horrible German power and people seem to be breaking down. Just how bad conditions are in their army and among their fiendish people we do not know nor do we know just how strong General Foch is to continue his glorious victory at this unfavorable season, but whether a collapse may come any day now, or whether we must fight on for another year, victory for us is certain.

Another thought impresses me strongly: To those of us who are not actively engaged in manufacturing it might seem now that our interest in the MANUFACTURERS RECORD would wane, but this is far from the truth.

From him who has done much one may safely hope for more. You have been in from the first, and are now finishing a great fight, but there remain two great fights of equal interest to your admirers. The first is to make the sentiment and determination of our people such as will compel our peace commissioners to stand solidly with France and England to get full reparation for all ravished peoples, and impose adequate punishment on the chief of all criminals, high and low. Neglect in doing this would bring the same disgrace on a national scale to civilized nations as is brought on a smaller scale to a court when a particularly vile criminal is freed by official corruption or maudlin sympathy.

And when peace is established we will face a struggle of a different nature, but as great as any we have been through. Tremendous opportunities for trade will be open in the new world. It will be up to us to play a greater part than any other nation, even England. But the wage problem due to the war, the money problem due to special taxation of the industrial leaders, the socialistic experiments we have made as war measures and all the great tasks of readjustment to peace conditions will tax the best minds of the nation. In these coming struggles our interest in the MANUFACTURERS RECORD will increase rather than grow less.

Sincerely yours,

O. P. MAXSON, M.D.

### For "Eternal Justice Sake" We Fight

The Warren Record.

Warrenton, N. C., October 14.

Editor *Manufacturers Record*:

We feel that it would be a blow to the patriotism of Warren and Vance and Halifax and the Halifax Times if the vibrant patriotism and progressive Americanism of the MANUFACTURERS RECORD was not made available to our readers through the republication courtesy allowed by your publication.

Accept my sincere good wishes in the great work which you are doing—work which is lasting and for eternal justice's sake. Enter us at once upon the mailing list and enable us to further distribute and personally enjoy the articles from the pen of Mr. Edmonds and the red-blooded patriotism of every issue.

W. BRODIE JONES, Editor.

October 31, 1918.]

## Fear that Pacifist Leanings Would Bring About Peace Without Punishment.

Prospect House,  
Niagara Falls, N. Y., October 25.

Editor *Manufacturers Record*:

Accept my hearty congratulations for your vigorous and manly stand against an unwise and premature peace suggested by a number of daily editors and public opinion. I wish you would keep up the good work and arouse the public sentiment against such hasty and criminal peace action.

I am enclosing a copy of a letter which I wrote to Hon. William McAdoo, Secretary of Treasury, in reference to the Fourth Liberty Loan, in which I know you will be interested.

JOHN R. MARDICK.

Mr. Mardick's letter is as follows:

Prospect House,  
Niagara Falls, N. Y., October 11.

Hon. William G. McAdoo,

Secretary of the Treasury,

Washington, D. C.:

Dear Sir—Re: Fourth Liberty Loan. One reason for the lack of interest of the public in the fourth loan is the belief of a great number that the present Administration is pacifist at heart and that it would not lose the first opportunity to conclude a premature peace without just reparation and condign punishment for the unspeakable crimes committed by Germany and her allies against humanity. The people think that now that blood is shed and millions have sacrificed their lives for upholding honor and decency against the assassins and ravagers of Belgium, France, Serbia and Armenia, they should not go scot free, without bringing the arch-conspirators and plotters to the gallows according to common law.

There is nothing in the President's messages or proclamations to assure the public about reparation and proper punishment of the guilty individuals. On the other hand, there is a tendency to let bygones be bygones and a readiness to shake hands with the nefarious assassins and sit at the same table as of old. During these periods of peace parleys and note writing, unless the public is otherwise informed by vigorous and manly stand by the present Administration, the same slackness about the fourth loan will continue and perhaps it may prove to be altogether a failure.

The public opinion all over the world is intensely aroused by the crimes and depredations of the Germans and Turks. Hence, with anything short of complete destruction of the Prussian armies and intriguers of these countries, there may be great political upheavals and lamentable acts of personal vengeance all over the world as soon as the soldiers return from the battle fronts.

I hope that the statesmen will be wise enough to see the undercurrent of public feeling and act accordingly.

Respectfully yours,

JOHN R. MARDICK.

## Unconditional Surrender Demanded by a Civil War Veteran.

New York City, October 23.

Editor *Manufacturers Record*:

I was certainly very much pleased to read your message to President Wilson as published in the *New York Sun*, and I want to congratulate you on the spirit of your forcible argument.

I hope you will keep on pounding the German hordes and fight for unconditional surrender, and nothing else. Let us fight those brutal demons to the end. Keep up the battle in the future as you have in the past. Give the German autocrats hell for all time to come.

I hope Mr. Wilson will not write any more notes to the scoundrels who have brought such suffering and misery on the whole world.

If the articles published in your valuable paper could only be read by all our people and the peoples of Europe there would be a different thought by all. Please keep up your work; fire shot and shell in the ranks of the pacifists.

Good luck to you, and more of it; hit the murderous devils right between the eyes.

I had the honor to serve with General Grant during the Civil War, and I hope, and hope hard, that we never will stop this brutal war till unconditional surrender is accomplished. Speak for unconditional surrender as General Grant did. Then, and not till then, will the world have a lasting peace.

W. R. WHITNEY.

## Not Very Friendly.

[Anniston (Ala.) Star.]

Judging from a catalogue of crimes he has compiled against them, one might be left to infer that Editor Richard H. Edmonds of the Baltimore *MANUFACTURERS RECORD* is not on very friendly terms with the Kaiser and his subjects. "To grant Germany and its allies peace would be to welcome back to civilization without punishment nations which," he says, "can be truthfully characterized as composed of liars, sharks, pirates, assassins, murderers, rapists, mutilators, bandits, despoilers, plunderers, pillagers, freebooters, looters, hypocrites and manglers of children."

Nor is that all. One word is not enough, in the opinion of Mr. Edmonds, to describe the depravity to which the latter-day Huns have sunk; so he proceeds further to speak of them as—

"Destroyers of cathedrals; bestial brutes whose crimes 'sicken a tiger'; robbers who have looted homes and nations alike; criminals whose hands run red with human blood; destroyers of womanhood and civilization alike; atheistic barbarians who would blot out Christianity; murderers on the high seas; gloaters over their own infamies; crucifiers of prisoners and bombers of Red Cross hospitals; makers of holidays to celebrate the murder of 1000 women and children and non-combatants; instigators of every vile devil-controlled mind and soul in neutral countries to poison the mind as they poison the wells; violators of every agreement as 'scraps of paper,' whose spoken or written contract is as worthless as a box of matches in hell; would-be world looters who cut down fruit trees with the same ruthlessness that they poison wells," etc.

"And shall we make peace with such scoundrels, whose crimes, whose turpitude, whose moral depravity and inherent vileness has made them the mental and moral prostitutes of all ages, and the willing murderers of millions of men, women and children?" he asks.

"May God forbid!" says Mr. Edmonds, in answering his own question, and the *Anniston Star* is rather disposed to agree with him.

## Justice Would Bring Full Punishment to Germany, Though Some Flabby Minds Try to Make Justice Seem Vengeance.

Millburn, N. J., October 24.

Editor *Manufacturers Record*:

It goes without saying that a righteous and just peace, if one can be devised, would be the best thing that could happen to the whole world, including Germany (meaning the nation). At the same time, such a peace is the last thing that Germany and a good many people outside of Germany, I fear, desire. In such a peace reparation and restitution will be carried as far as is humanly possible, of course, but as for revenge—well, we have it on high authority, none other than the Christ you so often quote, that we should not avenge ourselves, that "vengeance is mine, saith the Lord, I will repay."

"Would it not be well to show that ours is not the German spirit, by sticking to justice and talking less of vengeance? Is it pro-German to suggest it?"

STEPHEN BELL.

We have never seen anyone suggesting vengeance, but everybody who is honest-hearted demands justice, and justice means full measure of punishment to criminals. Anyone who tries to indicate otherwise is coming dangerously near to doing what Germany desires, and that is to create the impression that justice would be vengeance. Mr. Bell does not seem to be very well posted on Biblical quotations.

## Germans Pray, Prey, Promise and Prevaricate. In Other Words, Are Hypocritical Thieves and Liars.

Sakine Tram Co.,

Deweyville, Tex., October 19.

Editor *Manufacturers Record*:

Please accept thanks from my friends and myself for the copy of the *MANUFACTURERS RECORD* reprint of October 10. We are with you, men, women and children, in your views on Hunnish Hunnism, and we believe that your paper is the greatest exponent of "American Americanism" extant, and will be referred to as such as long as "America" breeds Americans.

No, we do not believe the "United States" went into this war to negotiate peace. On the contrary, she went into it to make peace, and has sent about 2,000,000 peacemakers to France for that purpose, and will send as many more as may be needed.

I can see through the Hun's peace (?) move as

plain as the man who made it. While I admit they want "peace," they don't want an "Allies' peace." Their great aim is to keep praying, preying, promising and prevaricating with the hope of lulling the Allies into relaxing their vigilance, then, presto, one big massacre!

I know the Hun. I spent five months as a volunteer in the French army under Colonel Gordon in '70 and '71, and I have also spent eight months in German ships. The Hun believes everybody else is just like him except in one thing; he thinks he is smarter than anyone else, but believes that they are just as crooked as he is. I never knew one to be honest unless he was forced to be. I never knew one to tell the truth unless he was compelled to, and I never saw one fight unless he was sure he had the advantage. I know the Hun. The egotistical idiot believes that he can inveigle the Allies into separate peace—watch him try Italy.

I am getting pretty well up in years, but I sure hope I live long enough to see the whole damn Potsdam gang hung—that's all we need, a "g" on the end of Hun.

CAPT. D. G. PRICE,

Veteran Civil and Spanish Wars.

## Secretary of State Lansing On Germany

In describing Germany in a recent address, Secretary Lansing, who has had abundant opportunity to study German methods, said:

"Americans, even among those intellectually equipped, have but vague ideas of the perverted mental attitude which made Prussianism possible, and of the reason why a compromise founded on the Prussian conception of international rights must not even be considered."

"I shall not attempt to enter upon a recital of the horrible brutalities perpetrated by the German armies in the prosecution of the war. They have been too often told to require repetition. It would be the needless reading of a catalog of black deeds of cruelty which would sicken a tiger by a nation which claims not only to be moral and possessed of humane sentiments, but to be actually commissioned by the Supreme Being to carry out His will."

"German diplomacy and intrigue, as now practiced, must be proclaimed an international crime, and suppressed forever. The philosophy of the 'superman' and of world mastery must die discredited. The evil influences which have so long poisoned the minds of the German people must lose their potency."

Secretary Lansing's full address should just now be read by every man and woman in America. It will be found in a pamphlet published under the title:

## "Germany—The World's Blackest Criminal"

15 Cents Per Copy

100 or More, 10 Cents Per Copy

Published by  
MANUFACTURERS RECORD PUBLISHING CO.  
Baltimore, Md.



# FIFTY YEARS OF PROGRESS IN THE LEATHER BELTING BUSINESS

**From a Three-Man Factory to a World-Famed Enterprise.**

## FACTORS IN EVOLUTION OF "DUXBAK" BELTING.

**The Charles A. Schieren Company, Its Growth and Continuous Success—A Broad Policy Closely Adhered To—Quality the Cornerstone of Its Prosperity—Its Dixie Tannery and Its Products—Its World-Wide Distribution of Its Belting—Its Place in War Work—Its Service to Trade and Customers.**

THE history of the tanning industry and leather trades in New York is interesting because of the greatness of its development and the constancy with which for 185 years it has been centered in the locality still known by its original characterization as "The Swamp."

When the Dutch first settled on the Island of Manhattan they located their city of New Amsterdam in the lower end of the island, and soon started such industries as seemed appropriate to the resources and conditions of the island. The chief industry was the buying and shipping of furs and skins of various kinds.

The trade of the tanner was one of the first introduced on the island, and the tanners located on Broad street until the growth of population around the tanneries led to a decree from Governor Stuyvesant and his Council banishing the industry beyond the city wall (Wall street) to Maiden Lane, near the East River. There it remained till, under the British Colonial management, this region, too, became encroached upon by residences and the authorities showed a desire to push the industry still further afield.

### Genesis of "The Swamp."

The chief necessity for a favorable locality for tanning upon the best methods was and is an ample supply of oak bark, the indispensable material for the manufacture of the best quality of leather. In 1734 Jacobus Roosevelt was looking about for an available site for tanning. Northeast of the city, and not far east from the Commons, was a large body of marshy ground covered by great and tangled briar patches. But all around was a considerable forest of oak trees with a supply of bark which was of a quality suitable to the manufacture of leather. He bought the tract, selected a site for his own tannery, laid the plot out into 50 generous lots, and sold them, as demand developed, to other tanners. The tanning industry was centered on this tract and flourished for a long time until the bark was used up, and the industry was banished from "The Swamp." But though the tanneries were removed, the tanners stayed, and the

other branches of leather activity remained, many houses of national and even international fame making their homes there.

### A Half Century of Schieren Effort.

Fifty years of progress, culminating in unquestioned leadership of the important branch of industry in which it is engaged, is the record of the Charles A. Schieren Company, manufacturers of leather belting.

Its present eminence is due to the evolution of a settled purpose on the part of the founder to earn success by deserving it, to make the best belt it was possible to make, and in that way and by reasonable prices and fair treatment to satisfy every customer. It was

the man behind the enterprise. It began in small quarters at 10 Gold street, and remained there until 1861, since which time it has been at Cliff and Perry streets, and finally built the present large and imposing building at that intersection for use as offices, salesrooms and factory, a fitting home for what has grown to be the foremost enterprise in the leather belting industry, famed for its product of highest grade and for the world-wide scope of its business.

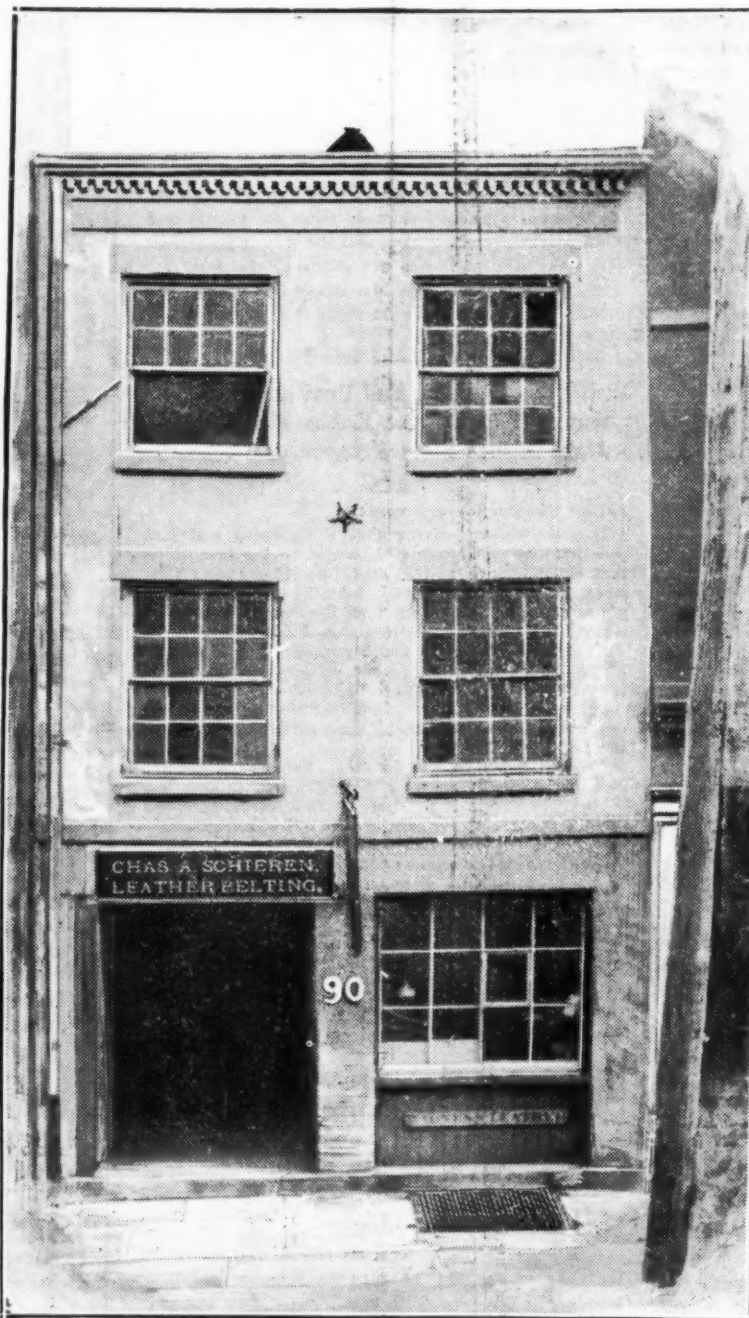
At the base of this development there has been, on the part of the founder, and his sons, who now conduct the enterprise, an intelligent realization that the driving belt has a function of the highest importance

in the success and efficiency of a manufacturing plant. The regularity and speed of operation of the plant are in exact ratio to the faithfulness or failure of the belt to perform its function. Therefore, the serious and ceaseless efforts of Charles Adolph Schieren, who founded the business, and his sons, who have succeeded him, to improve the belt to a degree of durability and reliability never before attained, has added materially to the accomplished horsepower of manufacturing plants all over the world.

### Founding the Dixie Tannery.

To provide itself with the resources and equipment required to secure the highest development of driving-belt usefulness the Schieren Company sought out a locality where it could secure the largest and most continuous supply of oak bark to enable it to use the old-fashioned, long-time pure oak-bark tannage, which is still superior to all other methods of tanning leather for belting. The locality was found at Bristol, Tennessee, in the Holston Valley, 1800 feet above sea level, surrounded by the Holston Mountains. Here the Schieren Company established, in 1863, the Dixie Tannery, a plant which has grown and developed in size, capacity and equipment to keep up with a demand that grows year by year for the superior product of the Schieren factory. The bark of each variety of oak has an especial adaptation to some particular grade of leather, but for belting none other equals that of the rock oak of which the chief habitat is found in the vast forests of the Appalachian chain of mountains on the boundary line of Tennessee and Virginia and southward into North Carolina. The Dixie Tannery is central to this extensive region of bark supply, the bringing in of which employs numberless carts, which come in endless procession to the tannery in early spring

laden with rich oak bark which has been stripped from the trees by hardy mountaineers, and which is dried and seasoned for the use of the tannery during the ensuing year. To the tannery from other directions come trains of freight cars loaded with hides from the slaughter-houses of Kansas City and Chicago.



THE OLD STORE, 90 GOLD STREET, 1868.

a small business when it began, but the founder, Charles A. Schieren, was a man of high ideals and strong personality, who never swerved from his programme of probity and efficiency. So that, although he began the business in 1868 with only two men to help him, his success was forecast by the character of

### The Tanning of Belt Leather.

The processes of cleansing, liming, "bating" (to remove the lime), and then the various tanning processes, consume 120 days to bring it to the condition of leather fit to use as the raw material for belting.

Taken from the vats, the hides are washed to remove every particle of tan bark and then dried in a darkened loft with very little heat, after having been laid on the grain side. Each hide is then cut into strips according to its grade and weight. The bellies, shoulders and all flabby or imperfect leather are thrown out for shoe purposes, and the central portion or heart of the hide reserved for belting. The solid leather is carefully shaved on the flesh side, in huge machines operating somewhat on the principle of a milling machine, and is then secured by other machinery for the purpose of opening up the pores for the reception of the stuffing of cod oil and pure beef tallow, by which the leather is preserved and made suitable for the transmission of power. This stuffing process, which occupies several hours in the Schieren process, imparts to the hide the long life which is a predominant feature of Schieren belting. When this is completed the leather is allowed to dry, brushed off, packed in bundles, and shipped to the New York factory.

Here follow the manufacturing processes by which this leather of Dixie tannage is converted into the famous "Duxbak" belting, the ultimate result of fifty years of progress—striving to produce the very highest grade of belting which it is possible to make. There has been a mastery of problems to adapt the belts to the progressive needs of modern industry—the introduction, for instance, of a fireless belt to supplant the old fluted belt, found to be unequal to the requirements of electric-light plants; the "Excelsior Belt," introduced by the company in 1880, which was the first dynamo belt made with extra dressing to render the belt more waterproof and less susceptible to atmospheric changes; the "Electric Belt," the original black belt, the object of the blacking being to fill the pores and protect the belt from damage from the mineral oil which is prevalent where high-speed electric-light engines are used; the "Perforated Belt," patented in 1888 by the Schieren Company, and especially adapted to electric-light and street-railway service.

### Extra Belts for Extra Service.

A specialty of the Schieren production is the manufacture of extra wide main driving belts for all kinds of factories and mills. The ability to do this with undeviating efficiency is maintained by the use of special machinery backed by 50 years of belt-making experience.

The highest culmination of this half century of effort is found in the world-famous "Duxbak" belting, a product the unapproached superiority of which has met world-wide recognition. It is the last expression of concentrated effort expended on the problem of quality, the leather made from the choice portion of the most carefully selected hides, the stuffing and dressing performed so as to secure unprecedented results in durability, a belt that sticks and holds, that functions seamlessly, that makes its trade-mark name of "Duxbak" the international synonym for the highest belting effort, and an important factor in the repute that places America first in quality production of the accessories of industry.

### The Achievements of "Duxbak."

From the correspondence files of the Schieren Company volumes could be compiled in support of the con-

tention that "Duxbak" is a service belt without a peer, and fully sustains the Schieren Company's claims that it is of "perfect construction from the toughest part of good hides, insuring maximum load capacity," and its special treatment rendering it immune to water and oils, and cites, among a large number of examples, a friction drive that "has given two years' service in a large hardwood mill without sign of stretch or wear." Only a few days ago one of the leading New York newspapers put in a new press of larger capacity and chain-driven in place of a press which a "Duxbak" belt had driven for approximately three years with the highest satisfaction to the newspaper company. The belt was in excellent condition, showing no kind of wear, and was sold by the newspaper to a satisfied buyer at a price about 50 per cent. greater than had been originally paid for it when new. It had stood without a falter the exacting test of running the press of a metropolitan paper, demonstrating its reliability and power, and sold for a price which, while partially

cially in the Polytechnic Institute, afterward broadening his knowledge by much foreign travel—in Europe, Cuba and Mexico.

His first induction into business life was as an apprentice in his father's tannery, from which he went into the position of a traveling salesman for seven years. He has always recognized that his vocation in life was to be the making, sale and distribution of leather belting, and from boyhood aspired to the mastery of all knowledge possible to be acquired about that business. So that when he came to be its executive he was fully efficient to secure the permanent progress of a business ever expanding as the result of a product into which every possible ingredient of expert knowledge had been put.

### Honors and Awards.

Medals and awards have come to the Schieren belts wherever placed in competitive exhibition. The American Institute honored them twelve times between 1893 and 1894. At the Centennial Exposition of 1876; World's Columbian Exposition, Chicago, 1893; Atlanta, 1895; Nashville, 1897; Omaha, 1898; Liverpool, 1883; Paris, 1889 and 1900; the Pan-American Exposition, Buffalo, 1901, in some instances taking both the gold and silver medals at the same exposition. More recent honors were the Grand Prix highest awards at Brussels, 1910, and at Turin, 1911, and the gold medal of the Panama-Pacific Exposition in 1915.

The confident knowledge of Mr. Schieren, now president of the Charles A. Schieren Company, that the product of the company was of a quality able to compete, to its advantage, with any made anywhere, coupled with his observations abroad, led him to the investigation of the possibilities of export trade, with the result that branches were established at several European points, while the domestic trade is conveniently reached through branch houses at Atlanta, Ga.; Boston, Mass.; Chicago, Ill.; Cleveland, Ohio; Detroit, Mich.; Denver, Col.; Kansas City, Mo.; Memphis, Tenn.; New Orleans, La.; Philadelphia and Pittsburgh, Pa.; St. Louis, Mo.; Salt Lake City, Utah; Seattle, Wash., and Dallas, Tex., each of which is the center of an active and growing business covering its trade territory.

### The Schieren Export Trade.

In these days, when American business thought, outside of its concentration on the problem of winning the war, is chiefly occupied with the related question of expansion of American business with foreign lands, the export question looms large. In this the Schieren house is especially fortunate in having made a most substantial beginning before we entered the conflict and has established the most favorable relations in all parts of the world where belting is in use. Somewhat temporarily hampered in facilities for transportation to European ports, the company is centering its attention very largely in supplying customers and adding to their number in South America, the West Indies, South Africa, the Dutch East Indies and Hawaii. In the Hawaiian Islands one of the company's most prominent representatives is now en route to the Philippines, where the Company already has branches; to China, where, except at Shanghai, the Company has no established branch; to the Straits Settlements, the Dutch East Indies and British India. In these countries, and wherever introduced, the Schieren "Duxbak" belting has established itself as premier in quality, load capacity and durability. Its standard quality, everywhere recognized, commends it to favor as an



PRESENT HOME OF THE CHARLES A. SCHIEREN CO., 30-35 FERRY STREET, NEW YORK CITY.

reflecting the general advance in commodity prices, also testified to the undeteriorated excellence of the belt after three years of constant wear.

### The Personal Equation.

Of the problem of progress and success worked out in the 50 years of Schieren development the personal equation has been ever a controlling one. The founder, Charles A. Schieren, impressed upon the enterprise his high ideals, scrupulously maintained. He was a man of mark not only in the business world, but also as a citizen of high purpose and achievement. As the Mayor of Brooklyn in its last years of municipal independence prior to its merger in the greater city, he is remembered for an administration marked by undeviating devotion to the best interest of that city. He died March 10, 1915, under the seal of approval of the business world and his fellow-citizens, as a man who had done his part with faithfulness and honor and had earned, as well as deserved, universal respect.

His son, Charles A. Schieren, who succeeded to the active executive management of the business, came to it fully equipped in every respect for the duties that thus devolve upon him. He was born May 8, 1869, in Brooklyn, was educated in the schools there, and espe-



export commodity especially valuable for transportation to those countries where it is desirable to send American goods to stabilize exchange.

In the ordinary calculation of goods available for this important commercial purpose it is held to be profitable to send salable merchandise abroad if it has a value of \$100 for 45 cubic feet. Leather belting, on the other hand, is a high-priced freight commodity, which will run up to from \$2500 to \$3000 in value for the amount that can be packed in 45 cubic feet. Computed on the basis of value in exchange for the least tonnage, leather belting is one of the most favorable commodities for that use because high in price in comparison to weight and cubic measurement.

In the largely increased share of international commerce which is everywhere expected to come to the United States following the close of the war, Schieren belting will without doubt be one of the most active participants. There is no part of this world sufficiently civilized to possess belt-driven industries where the good name of Schieren belting has not gone, and the Schieren export organization may be trusted to find its way through every open export door.

#### Schieren Belting in War Work.

In these days, when the energies and thoughts of the Government and people of the United States are centered upon war-winning efforts, every large enterprise is judged, as to its character as an essential industry, very largely upon the percentage of its product which goes into war work. Estimated on this standard, the Charles A. Schieren Company stands very high among those whose output goes into industry which is in aid of success of this country in the war. Much of its product is sold direct to the Government. Of the rest, while the dealings of the company are with the manufacturing interests of the country, it is also true that the same manufacturing interests have been, in very large degree, turned into war-winning business.

The monthly returns made to the Government as to the percentage of the output of manufacturing concerns that goes directly into war work called forth a significant showing from the Charles A. Schieren Company, whose return for last month showed that 82.62 per cent. of its output went directly or indirectly into war work, as against 17.38 into other activities. The Schieren Company therefore ranks prominently among the industrial establishments whose efforts form such an important feature in the total of industrial effort for the country's triumph in war, even without the participation of the house, to its full share, in the Liberty Loan, Red Cross and other campaigns on behalf of the country's cause.

As the war progresses the percentage of the Schieren

product which is properly credited to war work perceptibly increases. The policy pursued by the Government constantly tends toward the elimination, for the period of the war, of industries that are not essential to the winning of the war, and the discouragement of new industries that are not aids to the great American purpose in the gigantic conflict in which the country is engaged, and so, while the total output of Schieren belting grows, the war-winning proportion of it also increases even in greater ratio.

#### The Schieren Engineering Service.

In its fifty years of activity in the belting industry the Schieren Company has learned most thoroughly the lessons that pertain not only to the manufacture of the belts themselves, but also and especially has learned how best to adapt this accumulated knowledge to the operating problem of the individual user. This has led to the creation of a new and valuable factor of the Schieren enterprise in its Engineering Service. This service is a legitimate expression of the company's basic purpose to satisfy every customer. As formally announced by the company, the purpose of this Engineering Service is not to allow the purchaser to buy any other belting than that which will most economically meet his requirements. Briefly explained, the Schieren Engineering Service is as follows: If exhaustive correspondence with a prospective buyer does not indicate unmistakably its most serviceable and economical use, the Schieren Company will send to the purchaser's plant a member of its engineering service—an expert thoroughly familiar with best adaptation of belting and its subsequent possibilities as an essential of power transmission—who will study the expected requirements and advise the size and kind of belting needed for the plant, giving his personal service also, if deemed advisable, in installing the belt or belts. This rather extraordinary service has the added motive with the Schieren Company of protecting the high reputation of its product while serving the best interests of the purchaser. Its net result is to make a lasting impression in substantiating the claims of superiority made by the Schieren Company for its product.

#### The Schieren Product and Dealers.

The Schieren beltings, while largely sold direct to the machinery user, form an attractive staple line, for dealers of the highest caliber who at many points act as distributors for Schieren beltings, through whom customers may obtain new belts quickly when needed. To such firms the Schieren beltings have especial value as a most salable line because there are few companies or firms anywhere who do not know in advance that Schieren beltings are honestly made and will give abso-

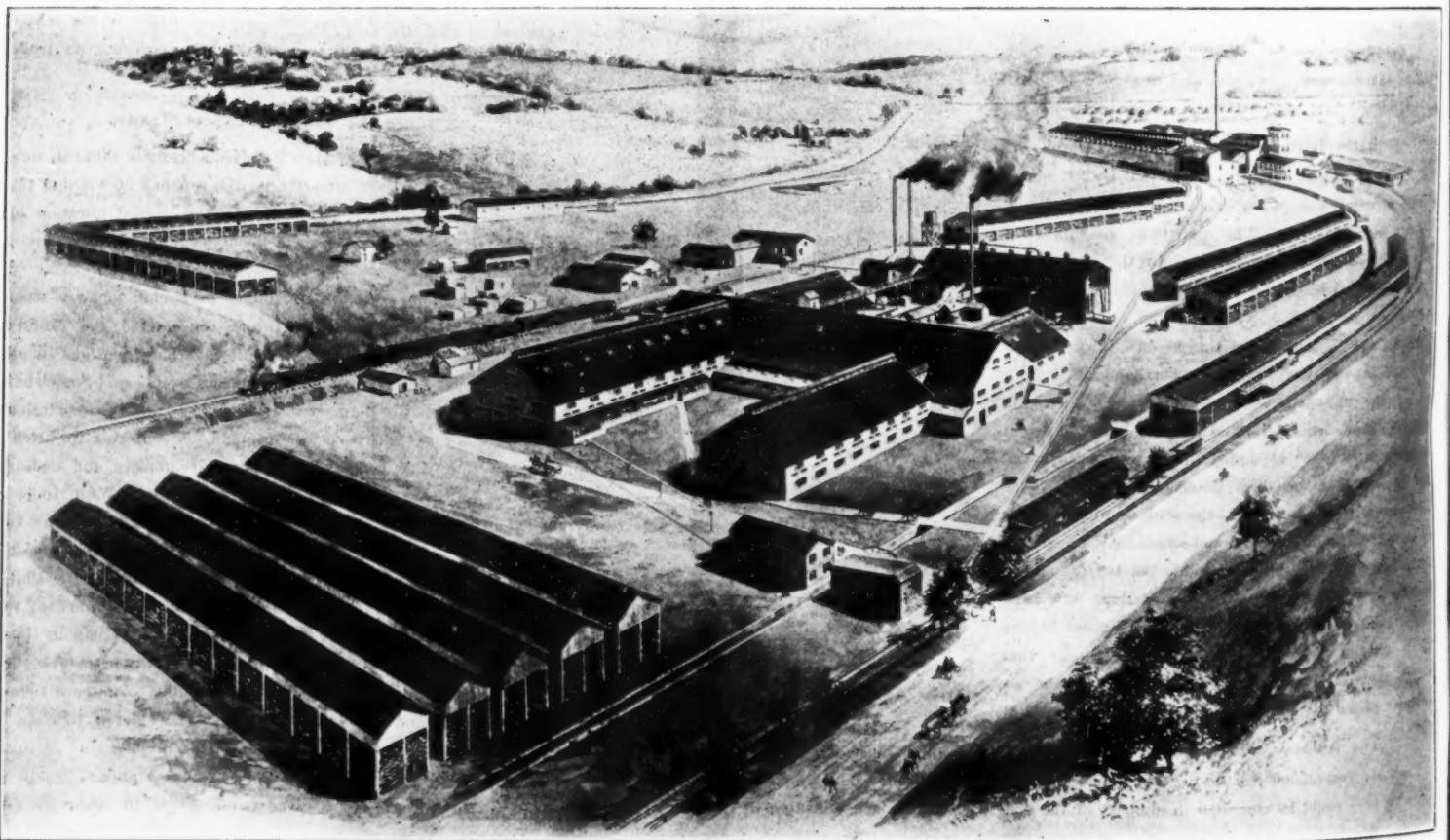
lutely the best service in their grades. Everything about the belt from the purchase and tanning of the hides has been done by the company, whose guarantee goes with its every product and whose reputation is firmly established everywhere. The company has from the first pursued a broad and liberal policy in its trade relations which has retained for it the customers' good-will and patronage year after year. Liberal terms and assistance are accorded to distributors.

Another factor which the dealer will especially appreciate is its publicity programme, which includes national and international advertising that has put the company in touch with buyers and users everywhere. Back of this advertising is the scrupulous care that it is truthful and reliable and that reliance upon it is not dispelled upon test of it.

This reliance is justified by the fact that Schieren beltings, in all their varieties, are kept at uniform excellence. There is many a product of good repute of which occasional examples fall below scale. But the Schieren beltings are kept true to grade by careful test and continual supervision of every operation and process. No effort is spared that can help to sustain the pre-eminence of the Schieren name in the belting business. Every belt of the Schieren make, wherever installed, is a permanent testimonial to Schieren carefulness and thoroughness. The case is very rare that a manufacturer or other machinery user who has once placed Schieren belting in his plant and needs more belting will consent to try any other make, or experiment in unknown belting products. He knows that Schieren belts will do his work satisfactorily.

#### The Schieren Management.

The crucial test of any enterprise is the quality of its management. In the Charles A. Schieren Company the policy and effective control of the business are in the hands of its executive, insuring quality, accuracy and economy. The department heads are men who are thoroughly trained in their particular duties and so organized that every part of this extensive business works in perfect harmony. The representatives of the company at home and abroad are men who know the business and its product thoroughly. Whether it be in the manufacturing processes, which have been improved from time to time by the addition of special machines and equipment; the careful inspection which follows the product closely, from the green hide to the finished belt; the methods of service in engineering and sales departments, and the performance of Schieren belts wherever installed, the management and products of the Schieren Company reflect the straight course the business has followed for half a century.—Advertisement.



CHAS. A. SCHIEREN CO. TANNERIES, BRISTOL, TENN.—COVERING 23 ACRES.

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# Whiskey and the "Flu"

By HOWARD A. KELLY, M.D., LL.D., Baltimore, Md.

Poor, feeble American people! Have we no minds of our own? Are we then, indeed, incapable of forming an opinion supported by an infinite number of indisputable facts, and then of holding onto that opinion for life? Are we like Kipling's Banderlogs, forever shouting "we are the people," as we form opinions upon vital matters one minute, only hastily to abandon them the next?

It does look like it when we see such a stir created by the recent disgraceful attempt to rehabilitate our most deadly national enemy, an enemy far more dangerous than the German armies in Europe, just as he is tottering into his grave, like a disreputable corpse too long delayed in the burial.

Now, why on earth all this fuss and ruction, when all that has happened has been the prescribing of whiskey for influenza patients by some doctors and some foolish laymen, distracted because their favorite beverage is being taken from them?

That many of these whiskey advocates are honest I have no doubt, but that all are ignorant I am equally assured. Most of the talk is kept up by the daily press, which is saturated with whiskey. Let me treat this matter by answering several questions.

1. Is alcohol of any service as a prophylactic; that is to say, is it good to ward off the disease?

2. Is alcohol of any positive well recognized use in curing influenza when it has once attacked the patient, or is it perhaps valuable in combating pneumonia, which is so deadly in "flu" cases?

3. What under heaven has the medical use of alcohol, if it has any such use, to do with the rehabilitation of alcohol as a beverage, or with the revamping of the saloon, or, indeed, with its use in any way whatever, except as a drug to be sold over the counter of the drug store for the occasional patient when the next great epidemic comes along?

First, then, let me declare emphatically that alcohol is of not the slightest value in warding off influenza; on the contrary, it is calculated to do great harm by lowering resistance and inducing the befuddled patient to expose himself needlessly. No one but a layman devoted to his dram would contend that alcohol would ward off an attack of the disease. He who is foolish enough to let a layman prescribe for him would also take his broken watch to the blacksmith to be mended.

Secondly, no man of standing that I know of recommends alcohol as of the slightest use in treating the influenza itself. One of our greatest medical minds (Shattuck) declares that the American Medical Association (the greatest group of medical men in the world) speaks of alcohol as everywhere and under all circumstances an unmitigated poison. This same writer inclines to the belief that it may be of use in cases of profound general sepsis, at the same time declaring that "until some efficacious antidotal treatment of pneumonia is discovered the mortality will remain about the same." (See Johns Hopkins Hospital Bulletin, April, 1918). I find this statement in the 1912 edition of Osler's great textbook: "To combat toxemia alcohol is generally advisable." Strange to say, in the very next year I find in "Modern Medicine," also by Osler, and McCrae (1913), just the contrary opinion expressed in these words: "Certainly its employment is falling more and more into disuse," and "collected statistics of patients treated without alcohol show a lower mortality when it is withheld (Hay), and even in chronic drunkards immediate withdrawal is better than temporizing administration. (Galli, Hernung)."

If this last statement is correct, then we doctors, in our misguided zeal, have in the past been guilty of shortening the lives of some of our alcoholics by giving them alcohol during pneumonia under the false impression that it was not safe to withdraw it suddenly. But in the name of common sense, the uncommonest of all senses, what has all this to do with the use of alcohol as a beverage which is in process of extermination? What has it got to do with the saloon, the deadly distiller and the murderous brewer, as they seek to re-establish themselves once more in our midst in the renewed hope of poisoning the blood of the nation and filling our jails and our asylums and our hospitals once more, as well as making wrecks of our young manhood and wrecking myriads of families?

Digitalis and strychnin and atropine are of value, too,

in influenza. Why not advertise the fact widely and make a hue and cry about them, too?

Alas, for the poor brewer and the poor distiller, who so recently ran out before the public crying, "Quick, give me some bonds, I am a patriot, too!" Here in a moment of excitement he has thrown off his camouflage lambskin and appears in his true wolf robes, ready, nay eager, to begin again his course of ruthless wreckage of the entire nation for his profit.

No, no, my dear friend, brewer, distiller and saloon-keeper, whom I would fain see saved for a nobler life in this world, and for the life eternal in the world to come, take my advice and let the putrid old hulk of John Barleycorn sink down into his disreputable grave, and spend your time better writing his epitaph, "requiescat in pace."

And you fellow-Christians get busy finding suitable social and recreational substitutes for the saloon, and get into closer personal touch with every man in the non-Christian world and pray for him and persuade him to join you in taking Christ as his Lord and Master.

## Coal Output for Week Ending October 19 Smallest Since May.

Production of bituminous coal for week ended October 19 not only decreased 800,000 tons, or 6.7 per cent., due to the influenza epidemic, but fell to the low weekly record of last May of 11,509,000 net tons, states the Geological Survey. The average production per working day is estimated at 1,920,000 net tons during the week ended October 19, as compared with 2,056,000 net tons during the week preceding, and as against 1,702,000 net tons during the week ended October 19, 1917.

The average daily production for the coal year to date is estimated at 1,992,000 net tons, which is slightly below requirements, and in order to make up the deficit it is necessary that daily production during the balance of the coal year should be equivalent to 2,039,000 net tons, or 2.4 per cent. in excess of the average daily production to date.

Carrier's reports show that the influenza epidemic caused a decrease in shipments from all fields with the exception of Western Pennsylvania.

The influenza epidemic also caused considerable loss in the anthracite fields, and production during the week ended October 19, estimated at 1,715,000 net tons, is a decrease of 240,000 net tons, or 12.3 per cent., compared with the week of October 5. The daily average during the current week is estimated at 286,000 net tons, as compared with 326,000 net tons during the week of October 12 and as against 335,000 net tons during the coal year to date. Total production for the period April 1 to date is estimated at 57,373,000 net tons, compared with 56,736,000 net tons for the same period of 1917.

Production of beehive coke in the United States during the week ended October 19 is estimated at 575,900 net tons, a decrease of 25,000 net tons, or 4 per cent., compared with the week preceding. The average daily production is estimated at 96,000 net tons, as against 100,000 net tons during the week ended October 12.

By-product coke plants of the United States were operated during the week ended October 19 at 91 per cent. of their full time, as compared with 91.3 per cent. during the week preceding. Of the total loss of 9 per cent., 1.3 per cent. was due to lack of by-product coal, 0.6 per cent. to shortage of labor, 5.7 per cent. to repairs to plants and 1.4 per cent. to other causes.

Material improvement was reported during the week in the Maryland, Pennsylvania and Tennessee plants. In Maryland the operators attribute the improvement to better labor conditions, in Pennsylvania to other causes and in Tennessee to repaired plants.

## 100 Per Cent. Increase in Broom Corn Production in Texas.

McAllen, Tex., October 25—[Special].—It is shown by reliable statistics that have just been collected that the total broom-corn yield in Texas last year was approximately 6000 tons.

So far this season there has been shipped from points in the Lower Rio Grande Valley a total of 842 cars, with an average capacity of 10 tons each, making a

total tonnage of 8420 tons. A conservative estimate places the balance of the broom-corn crop of the Lower Rio Grande Valley at 300 cars, or 3000 tons additional, or a total tonnage for this section of 11,420 tons. This is considerable in excess of last year's production.

The shipment of broom corn from points in Texas, outside of the lower Rio Grande Valley, is estimated at 100 cars.

The figures show that the Rio Grande Valley will have shipped out approximately 11,420 tons; other Texas points, 1000 tons; thus more than doubling the output of the previous year.

## Big Top Crop of Cotton Promised in Texas.

Austin, Tex., October 25—[Special].—It has long been said that the "Texas cotton crop can promise more and give less and promise less and give more than any other known crop." The latter part of this saying is proving true this year. Six weeks ago the cotton plants in Central and South Texas had the appearance of having produced their full yield; they were apparently in the dying stage. Then came good rains and an almost unprecedented period of warm, growing weather. The plants put on new verdancy and were soon loaded with a second crop of squares. Brighter prospects for an enormous top crop of cotton were never known than now. It is estimated that if frost should hold off until the latter part of November, fully 700,000 bales will be added to the earlier crop estimate of the yield for Texas. The weather has been ideal for this new growth of the plant. Recent generous rains have enhanced the already optimistic situation. It is not unusual for the date of the first frost to be as late as December, and if this should happen this year, the present prospects for a big top crop will undoubtedly be fulfilled, it is stated.

Attention has been markedly drawn this year to the wonderful success that is obtained in growing cotton by means of irrigation, even in those sections of the State where rainfall is ordinarily sufficient to insure an average yield of the staple. In the vicinity of Austin, in the valley of the Colorado River, irrigation of cotton was practiced to some extent this year. As a result of applying water when most needed the crop upon these irrigated tracts is yielding more than two bales per acre. Similar results have been obtained during the last several years in the lower valley of the Rio Grande.

Business conditions throughout the State are very satisfactory, according to reports received here. The ranching interests are ready to enter the winter in much better shape than last year, so far as the range is concerned. Most of them have already laid in their feed supply.

All kinds of building operations, except those that are most urgent and which relate in some manner to the war, are suspended. Plans are going forward, however, for a big renewal of these activities when the war is over.

## Wants Information as to Fiber from Pine Needles.

A subscriber to the MANUFACTURERS RECORD sends the following communication:

"We are interested in the defibrization of the needles from coniferous trees, in particular those of the long-leaf Southern pine and white pine. We have been informed that a fiber has been obtained from these needles in the South, but that the enterprises so engaged failed because of commercial objections to the fiber. We believe that these commercial objections, so far as we can imagine what they were, would be no hindrance to our use of such a fiber if it could be obtained at reasonable cost. In other words, we suspect that such a fiber is suitable for our purpose, but cannot state so definitely because we have never been able to secure a sufficient quantity for an intelligent trial.

"The length of the fiber would not be a matter of great concern to us, for we do not propose to use it in the manufacture of twine, mats or anything of such a character that a long fiber is desirable.

"If you could give us an idea of the history of these undertakings and the present status of them (if they have any at all), and have any suggestions to make as to how we could procure, say, two or three tons of such a fiber, we would be very much indebted to you."

We shall be glad to print any information on the subject which may be sent us by those who are informed.



# Bolshevism Typified in a Government Order

AUTOMOBILE OWNERS ORDERED TO CARRY PASSENGERS IN WASHINGTON

[Special Correspondence Manufacturers Record.]

Washington, D. C., October 25.

Individual liberty has been considerably sapped by restrictions made necessary by the war, but about the last word in Bolshevism was contained in the order recently issued in this city by E. B. Parker, chairman of the "Governmental Emergency Committee," directing owners of automobiles to carry Government employees to and from work.

It is true that the mandatory character of the announcement, as it first made its appearance, was afterward changed to a "request." There is small indication, however, that the change was due to a voluntary recognition on the part of the original sponsors of the "order" as to its high-handedness. Rather is the belief prevalent in Washington that the order acted so effectively as a boomerang that the better judgment ensued. It is at least a known fact that it had directly the opposite effect to that intended, as many automobile owners who previously gave a "lift" to the war workers immediately discontinued the practice when the order appeared. Many automobile organizations had also either protested against the order, or were preparing to do so, when it was altered to the form of a request.

As to the organization responsible for the remarkable order in its original form, the "Governmental Emergency Committee" was created in Washington to handle emergency matters in connection with the epidemic of influenza. Mr. Parker, of the Priorities Committee of the War Industries Board, was made chairman. Representatives of other departments were on the committee. Some members of the War Industries Board long ago recorded a high temperature, due to swollen head and intoxication resulting from an excess of power.

Mr. Parker and his associates decided that crowded conditions on street cars was one of the many conditions responsible for the spread of influenza. They issued a statement suggesting that Government employees walk to work, thus getting exercise and fresh air, and thereby reducing the chances of contracting the malady. The employees preferred to ride. Then the committee issued its order, prominently "played up" on the first page of every Washington newspaper, directing that "owners of passenger automobiles shall attach to windshields the following notice, obtainable at police headquarters, stations and substations:

"WAR WORKERS,  
SEVEN O'CLOCK TO NINE-THIRTY.  
FOUR-THIRTY TO SIX-THIRTY.  
DESTINATION—(to be filled in by owner)."

The order informed all war workers that they might hail any car not already filled; that a car hailed, unless on a pressing errand of mercy, "shall take up passengers to seating capacity." It was added that "the police will co-operate with this plan."

No better method for spreading the influenza could have been devised. Presumably those who rode in automobiles were safe, according to the committee. The effect of the order was to provide a crowded condition in automobiles, where the contact would be closer than in street cars. The order was, in its effects, an incentive to vice. The police were virtually instructed to co-operate in a plan which would give men walking on the streets an opportunity to hail respectable young women driving their own cars and to ask them for a ride. It furnished the opportunity for sporty young men driving cars to hail young women walking to their work, so that they might make their acquaintance. Every conventional safeguard deemed wise by society would be destroyed if the public obeyed the "order."

The chief feature of the order, however, is found in the plain invitation that is implied to Bolshevism. The city was informed in the order that property rights no longer counted for anything; that an automobile purchased by thrift and self-denial belonged to anybody who chose to commandeer it. If the shiftless obtained a taste of such distribution of property during an epidemic, why should they give up the privileges when the epidemic was over? The Government clerk, who

had saved his money, denied himself entertainment and little luxuries in order that he might purchase a car, finding that all his neighbors had a right to use that car, might well dispose of it on the theory that he could force someone else to carry him.

If any order ever pandered to Bolshevism this one did. Most of the motorists, some of whom formerly carried war workers, were so resentful that they ignored the order completely.

## New Type of Barges for River Transportation.

By EDWIN E. MYERS, Cincinnati, O.

Canalization of the Ohio and Mississippi rivers to produce permanent navigable stages is working great changes in the type of river craft. The old-fashioned "shell" barge, which, in substance, was merely a box with an open top, with shallow bulkheads in the front and in the rear, is to give way to a new freight barge designed by the Emergency Fleet Corporation. The first of these barges are being delivered now for operation on the Mississippi River.

The limiting depth during the low-water season in the Upper Mississippi River is four feet for a wide tow. The barges had to be so designed that they could carry economically low-class bulk freight like coal, ore, steel and lumber, or oil. The limits of length and width imposed by locks and bridges had carefully to be considered also. There are 14 bridges between St. Louis and St. Paul. There are two locks and soon will be three, as an additional lock is being constructed on the Upper Rapids at Smith's Island, a few miles above Moline. All but one of the bridges have clear spans of at least 150 feet, through which three 48-foot barges may be passed abreast.

The length limit at the Moline lock is 300 feet. The problem confronting Mr. Mitchell and those who worked under his direction was that of designing craft which should handle upstream tonnage against rapid currents, and could be operated profitably on a depth of four feet in time of low water in a country whose rail transportation is on a lower ton-mile basis than that of any other country of the world.

The plans which have been developed contemplate the construction of 24 steel barges with double bottoms. These barges will be 300 feet long, 48 feet beam and 10 feet deep, with 8 to 9-foot draft. Such a barge will carry 2000 tons on 9 feet. On a four-foot draft at time of low water it will carry 850 tons. A tow with three such barges would thus carry 9000 tons at high water and 2550 tons at low water. The barges will be built with open cargo hoppers, with the second bottom five feet from the bottom of the barge. The cargo hopper will be 36 feet wide, thus providing a six-foot deck on each side of the cargo space, which will be surrounded by a raised coaming. The barges will be equipped with pipes and pumps, so that they may carry oil in the double bottoms. The location of the great oil fields of Southern Illinois and Louisiana relative to the Mississippi River makes this a desirable feature. Each barge will have rudder and anchors, so that if tandem towing by hawser, as is common practice in Europe, should be required, the equipment will be adapted to it. The barges will be double-enders of what their designer calls a "demi-semi-spoon" shape.

The present standard coal barge on the Ohio River is 135 feet long, 26 feet wide and draws 8 feet. It will carry, at maximum draft, 500 tons. There is also an old type known as "thin sides," 150 feet long, 26 feet wide and of 10 foot draft, that years ago was used to carry coal to the Lower Mississippi River. This coal flat had a capacity of 1000 tons.

The towboat must meet conditions of a most exacting character. It should furnish 2000 horse-power at high water and carry a day's coal on a draft of three feet. The boat which has been designed to achieve this will be 216 feet long by 58 feet wide. Something of the difficulty of obtaining the requisite power within these dimensions on this draft may be judged from the fact that the towboat Sprague, the most powerful river towboat thus far constructed in the United States, develops approximately the same power on a draft of nearly

seven feet with a hull length of 275 feet and a breadth of 61 feet.

The new towboats will have modern marine engines. The boilers will be water tube or of combination water tube and fire tube type, carrying 250 pounds pressure. "Boilers have usually been the weak point of river steamers," said Mr. Mitchell. "The old, big flue boiler of the ordinary river boat is frightfully overtaxed, being called upon to evaporate as much water on four square feet of heating surface as is evaporated by 10 square feet of surface in the ordinary land installation." The new towboats will have the boilers and engines placed about one foot above the water line of the boat, in order to make a low model and save weight. They will be provided with "towing engines" to keep an unvarying stress on the hawsers in towing barges tandem. The wheel will be a stern wheel about 21 feet in diameter. The boats will be equipped with auxiliary rudders at the rear of the wheel. These rudders were borrowed a few years ago from the practice of steamboats of the Yukon and Columbia rivers. Everyone who has ever traveled on a stern-wheel steamer knows the tremendous "flanking" power of the large balanced rudders just forward of the wheel when turned at an angle of 45 degrees and the wheel is revolved backward, throwing the water against the rudders. The boat under those conditions moves strongly sidewise and is capable of swinging a heavy tow against the pressure of currents and a strong wind. The auxiliary rudders, placed back of the wheels, give the boat the same steering power when going ahead as do the balanced rudders when backing.

The fleets to be constructed under these plans will have a wider range of operating possibilities than any other river craft ever designed at home or abroad. The barges will be pushed as on the rivers of the Mississippi Valley, or may be towed tandem as in Europe. They may be loaded with oil or with heavy, bulk freight, and will serve for the transportation of any commodity that may be carried without protection from the weather. They will operate profitably on all depths from four to nine feet. The fleets will be constructed of steel throughout, and the towboats will be the most powerful vessels of their kind yet designed. While they will represent a distinct advance upon any equipment now in service, no single detail will be embodied in them whose use is not warranted by the records of actual experience under severe operating conditions.

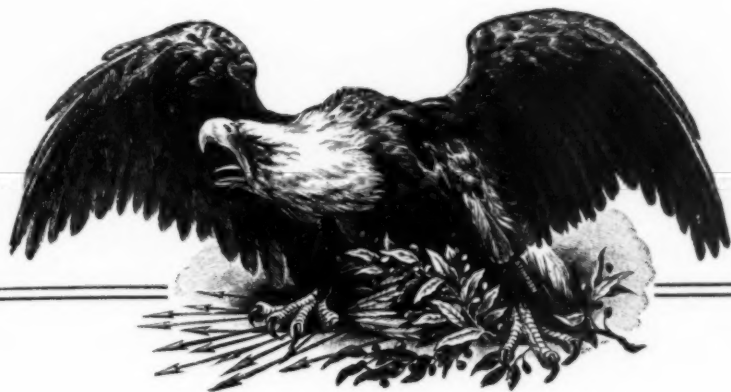
## A. E. Stilwell's Plan to Pay the Great War's Debts.

A suggestion of how to pay all war debts is made in a book just published in England and written by A. E. Stilwell, who will be remembered in the United States as the promoter of the Kansas City, Pittsburgh & Gulf Railroad (now the Kansas City Southern), and later the Kansas City, Mexico & Orient Railway. His book is called "The Great Plan," and an announcement of its publication says that the mode of paying the war debts proposed by the author has for its basis the savings which would accrue in the world if 100 years of peace can be established everywhere. These savings are estimated at 400,000,000 pounds (something less than \$2,000,000,000) a year. It is assumed that 7,000,000 men will return from the war to the industrial world, and their creative work is valued as low as 10 shillings (nearly \$2.50) per day, so that their aggregate production each day would be 3,500,000 pounds, or about \$17,000,000, so that in 40 years they would have created as much new wealth as the cost of the war.

Thus it is argued: "If the cost of this war is 40,000,000,000 pounds, the savings by disarmament plus the earning value of 7,000,000 men will during 100 years be two and one-half times the cost of the war," and the plan "anticipates and capitalizes this saving for the benefit of those living." Furthermore, the idea is to carry out the plan by means of a world issue of bonds equal to the total cost of the war to all nations, with a sinking fund which will retire them at the end of the 100 years, these bonds not to be sold, but to be used as a basis for currency, which is to be retired as fast as the bonds are paid off. It is asserted that there is sufficient gold to thus pay off the currency, and that this new cash in the treasury of each nation will enable them to pay off all international war debts in one hour, all war bonds or stock in 15 months, besides providing ample money for two generations to care for the wounded and pay pensions without taxation.

October 31, 1918.]

*This pamphlet just published  
should be widely distributed  
and read throughout America  
and the countries of our Allies*



## What Shall Be America's Answer To German Peace Pleas?

In view of the discussion of peace terms that should be meted out to Germany and its Allies, the following editorials from recent issues of the Manufacturers Record and Rev. Dr. Newell Dwight Hillis' superb survey of the whole subject are reprinted to emphasize the need of dictating a peace that will forever stamp out Germanism.

**REV. NEWELL DWIGHT HILLIS, D.D.:**

**"The Hour is Big With Destiny—Only Safe Word is Unconditional Surrender."**

**RICHARD H. EDMONDS, EDITOR MANUFACTURERS RECORD.**

**"This Should Be America's Answer to Every Peace Plea from Germany and Her Allies."**

**"Why Germany Should Be Made to Pay the Cost of the War to All Allies, Which Would Be Far Less a Burden Than the South Had to Bear After 1865."**

**"Senator Lodge Did Not Go Far Enough."**

**"The Peace Terms Which We and Our Allies Should Enforce After Our Flags Fly in Triumph Over Berlin, Vienna and Constantinople."**

**"Unconditional Surrender Before Any Peace Talk."**

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### **EFFORT TO GUARD BUSINESS AFTER THE WAR.**

**Louisville Board of Trade to Memorialize Congress—Declines to Be Expected—Provision Must Be Made for Shrinkage and Adjustments Following Peace.**

Louisville, Ky., October 22.—[Special.]—The Louisville Board of Trade has arranged a protest against a clause of the Federal tax bill, claiming in a statement that has just been approved that the Federal plan will bring panic after peace comes. Legislative protection for business against market value contractions that may be expected with the close of the present war is urged by the trade body in a memorial which is being prepared, and which will be sent to Congress in connection with the present war revenue legislation, and which will also be sent to other commercial bodies all over the country. It is urged that there is danger in failure to provide for reserve to cover the decline that may come in present inflated values.

The statement was prepared by a special representative committee, composed of the biggest business men of the city, and headed by William Hepburn, president of the Belknap Hardware & Manufacturing Co., one of the largest jobbing organizations in the country. Other members of the committee are Thomas Floyd Smith, past president of the Board of Trade and National Paper Trade Association; S. B. Lynd, president of the Citizens' National Bank, one of the shrewdest bankers in the Central West; Philip S. Tuley, president of the Louisville Cotton Mills Co., and former president of the Middle States Textile Manufacturers' Association, and Fred W. Keisker, president of Fred W. Keisker & Sons, large furniture handlers. The statement was approved by the directorate of the Board of Trade without change. This statement covers the views of five of the brainiest business men of the city, and should bear considerable weight, as these men are nationally known.

The Board of Trade's statement is in the nature of a comment on the revenue bill before the House, and reads:

#### **PROFIT, TAXES AND WAR TAXES SHOULD NOT DISCOURAGE SOUND BUSINESS METHODS.**

It is apparent to men who are students of financial and business affairs that one of the dangers to be avoided in the conduct of business is the withdrawal of earnings, by dividends or otherwise, that could be and should be used in strengthening and developing a business.

In the average business there is no method of providing additional permanent funds for strengthening it against severe shocks, inevitable at times, other than to retain in the business part of the earnings.

It is most important to determine what amount of money may be safely withdrawn from a business as profits or dividends without injury or threatening injury to the future of the business.

It seems evident that the interest of the Government in determining its taxation policy should avoid, either by compulsion or inducement, the payment of profits to owners, or dividends to stockholders, in excess of the amounts that would fall within the principles above stated.

Nothing could be more unfortunate, in connection with the probable reaction in business that may come with peace, than a commercial panic, and nothing seems surer than that the excessive withdrawals of profits by partners or the excessive payment of dividends to stockholders would result in such panic.

The Board of Trade desires to call attention of the Congress of the United States to the danger of either requiring or encouraging by any provision of the proposed revenue act, in any way, the declaration of dividends or the division of profits, and protests against the provisions in House Bill No. H.R.—12863, providing for a base tax at a higher rate (18 per cent.) on undeclared profits than a lower base rate (12 per cent.) on declared profits.

#### **DANGER IN FAILURE TO ALLOW FOR RESERVE TO COVER EXCESSIVE VALUATIONS.**

In the present law, taxpayers are required to return earnings for taxation on the basis of either:

- First—Their cost value, or
- Second—Their market value.

A return on the basis of cost value on stocks bought at different times under different contracts is so difficult that such valuation must at best be estimated, whereas merchants and manufacturers always know the market or replacement value—that is, the producers' prices, and as a solution of the difficulty and to assure themselves of their compliance with the law, have, in most cases, figured their inventory at the market value.

Under the operation of the law heretofore existing, and, so far as we know, the law proposed by House Bill No. H.R.—12863, profit taxes are levied on the profits shown to result from the inventories of stocks of materials.

It should be considered that there is now in almost every business an element of risk in the high costs of merchandise and raw materials that will undoubtedly result, on the resumption of peace, in large losses to the holders,



and if this condition is accompanied by heavy indebtedness for merchandise or raw materials, or both, the result is likely to be financial disaster to the holders.

The obvious remedy is that against the excessive cost of such merchandise or materials earnings should be withheld from partners or stockholders sufficient to represent the difference between the present value of merchandise or materials and the prices to which such goods may fall.

If the principle is admitted, the question to be decided is—how far would such a descent in prices go? The answer of experienced people is that on the resumption of peace and competitive internal conditions, prices prevailing previous to the war will return, and whether they return in one month or one year, merchants carrying stocks and manufacturers carrying raw materials and partly manufactured materials will have to make losses on this basis, either on successive turnovers on different goods, or at one time.

Our contention is that the inventory profits resulting from mere advanced valuation in merchandise or materials on hand should not be subject to profit or excess profit taxes or war taxes until realized, and we, therefore, request that the Congress give consideration to the propriety of authorizing a deduction in value of merchandise and materials when inventoried at current market values of a reasonable percentage to cover the probable shrinkage after the conclusion of the war. The percentage should be determined by the average percentage of advance that has occurred in a particular business since the beginning of the European War—say July 1, 1914, and to be effective to prevent serious disaster to many concerns should be equivalent to at least 50 per cent. of the average advance. Such a provision is increasingly necessary as the rates of income, excess profits and war-profit taxes increase.

If the suggestion does not meet with the approval of Congress, it is hoped that the principle be recognized that there should be some provision for the amortization of unrealized profits invested in materials or merchandise before the computation of profit taxes or excess profit taxes or war taxes and such other provisions looking to financial stability and confidence after the war.

In this statement the board clearly lays forth the dangers of declaring profits on or taxing unearned profits which may be wiped out overnight by the final surrender of Germany. Copies of the resolutions have been sent to all of the Kentucky Congressmen and Senators.

The Retail Merchants' Association and other business organizations, including retailers, jobbers and manufacturers, have declared in favor of this statement and the position taken. The strong peace movement of the past few days has brought home a realization of the fact that a reconstruction period is not so very far off, and readjustment to a peace basis is going to be a serious matter, and one that should have been taken up and more forcibly considered some time ago.

### Big Oil-Boring Operations in England.

Machinery for drilling for oil for the navy is being rapidly erected by Lord Cowdray on two sites near Chesterfield, Derbyshire, and operations on the first bore will be begun by American experts in a few weeks.

Lord Cowdray, head of the firm of S. Pearson & Sons, in March offered to spend £500,000 in boring for oil on condition that the work would be protected by legislation from indiscriminate drilling. The Government accepted the offer, appointed Messrs. Pearson as its agents, and passed the Petroleum (Production) Bill, prohibiting persons other than its agents from searching for or getting petroleum in the United Kingdom.

In the meantime Lord Cowdray, to avoid delay, obtained up-to-date machinery and skilled labor from the United States.

An oil-mining expert, when interviewed, said that the cost of drilling a single bore under the most favorable conditions would be between £30,000 and £40,000. Oil in Derbyshire is most likely to be found at a depth of about 2000 feet. A bore for this depth will be started with a hole 15 inches in diameter, finishing up at the bottom at about 6 inches or 8 inches.

It is a most skillful and delicate operation, and any carelessness on the part of the drillers or the breaking of the drill may result in the bore having to be abandoned after weeks of work.

It is hoped to get from the Derbyshire bores a crude oil heavily charged with benzene (motor fuel), paraffin and other valuable by-products, which will be "drawn off" (distilled) before the heavier product is sent to the Admiralty for naval use as fuel.

Lord Cowdray, it is understood, considers the success of the venture to be of such great national importance that he is prepared to spend £1,000,000 on his own account before he will abandon the scheme. At present the entire business and geological staff and premises of Messrs. Pearson have been placed without charge at the service of the Government.

## Livestock Industry in Mississippi Wonderfully Stimulated by Boys' Clubs

[Special Correspondence Manufacturers Record.]

Jackson, Miss., October 19.

Another chapter in the history of Boys' Club work is beginning in Mississippi, and it promises to be every bit as interesting and valuable as the ones that have preceded it.

It was a Boys' Pig Club, assisted by W. R. Ritch, farm demonstration agent for Yazoo county, that made the first co-operative hog shipment from this State and thus opened the way for an industry that now is bringing into the State millions of dollars annually.

Having put this business upon a firm basis, and filled with a spirit of confidence in the youngsters, Mr. Ritch determined to try to put the sheep industry back upon the footing it once was in this section of the South, and settled upon Boys' Lamb Clubs as the surest and quickest way to do this.

Mr. Ritch believes in sheep. He says every farm in Mississippi ought to have at least a small flock.

In 1917, after he had seen the hog business grow from nothing to one of the chief industries in the State, he decided to start lamb clubs. He went to the three banks of Yazoo City and laid his plans before them. They were simple and practicable.

He asked that the banks buy sufficient sheep to furnish two to five lambs to any girl or boy in the county who would agree to take them, give them the proper shelter and the proper pasture. The bankers had had some experience with Mr. Ritch, and their coffers were much fuller for his presence in the county, so they agreed to finance the scheme.

They took the boy's or girl's note, agreeing that it was to be paid out of the sale of buck lambs from the flock, and if the boy or girl wished, out of the proceeds of the wool also.

In January, 1917, 100 ewes were purchased. In October, 1918, a banquet was given for the bankers and the county board of supervisors, at which results of the club were given. Thirteen complete reports from boys and girls were read, as follows:

James Reagan bought six ewes and one buck for \$32.70, sold buck lambs and wool to the amount of \$51.30 and has 10 ewes on hand; Geneva Golden and

two brothers bought 10 ewes for \$54.50, sold \$112 worth, and have 17 ewes on hand; Dallas Vandever and sister bought 16 ewes for \$114, sold \$206.50 worth, and have 22 ewes on hand; Mary Francis Willoughby bought 5 ewes for \$29, sold \$69.85 worth, and has 11 ewes left; Robert Martin bought 5 ewes for \$29, sold \$50 worth, and has 10 ewes left; Lillian and Catherine Killey bought 10 ewes for \$50, sold \$50 worth, and have 18 ewes left; Monroe Hamberlin bought 2 ewes for \$10, sold \$23 worth, and has 6 ewes left.

Two children entered in the fall of 1917 with these records: Cordelia Coker bought two ewes for \$16.30, sold \$32.10 worth, and has six ewes left; William Clark bought 10 ewes for \$125, sold \$121 worth, and has 16 ewes on hand.

In all, 54 ewes were reported on in the first group. The net profit from these was \$282, and there has been an increase from 54 to 94. In the second group 13 ewes were reported upon. The net profit from these was \$20.35, and in one year they have increased from 13 to 22.

After these reports were laid before the bankers, and it was found that in nearly every instance the first year's yield had more than paid for the original investment, the bankers agreed to set aside \$2000 for the club work in 1919, and this amount will be invested in ewes as rapidly as they can be well placed.

No difficulty has been found in selling the lambs at excellent prices, and the wool, too, has brought good returns.

Concerning the lamb clubs, Mr. Ritch says:

"This has been one of the most profitable demonstrations I have ever given. I had the pleasure of pleasing the banks so well that they agree without any argument to lend me \$2000 for the work next year.

When we cover the foothills of Yazoo with sheep, the tablelands with cattle and the Delta with long-staple cotton, then old Yazoo will be one of the greatest counties in the South."

Mr. Ritch prefers the Southdown and Shropshire varieties of sheep as being best suited to the South.

### New Source of Rubber Reported from Mexico.

Monterey, Mexico, October 15—[Special.]—Growing wild and in great profusion over a vast area of territory in the States of Chiapas, Campeche and Tabasco, in far Southeastern Mexico, is a wonderful rubber-producing plant, which is to be put in commercial use. Some time ago an official report of the rubber properties of this species of vegetation was made to the Mexican Government. It is in that region also that a number of Para rubber tree plantations were established some years ago. Revolutionary troubles caused most of these properties to fall into a state of neglect, but in a few instances the trees have done well and are now yielding caoutchouc in considerable quantities. It is stated that the newly-discovered source of rubber supply is a tropical plant and reproduces itself from the roots within a few months after cutting. It is an entirely different type of plant from the guayule shrub, which grows wild in the more altitudinous portions of Northern Mexico, and is being commercialized for its rubber properties on an extensive scale.

James T. Forney, an old American resident of Mexico, who owns a large cocoa plantation near Tuxtla Gutierrez, State of Chiapas, has constructed a large plant for extracting rubber from the new growth. He says that the plant is in the nature of a vine that not only spreads itself over the ground, but clammers over large trees in the densely wooded region of the tropics. During a visit to Monterey, where he placed an order for additional machinery for his rubber extracting plant, Mr. Forney said:

"This remarkable vine has the same general appearance of the lianes which are found in most tropical regions. The discovery of its rubber content was made quite by accident. Chinese laborers who were working on a plantation not far from me found that by weaving the vines into a sort of hammock they were able to obtain an elasticity that was not to be had by using

other kinds of vines. The elasticity of the vines is specially notable if they have been cut for some time and the rubber sap allowed to harden.

"The attention of the owner of the hacienda was called to the peculiar properties of the strange vine. Upon investigation the vine was found to carry a high percentage of pure rubber. It amounts to about 20 of 25 per cent. of the weight of the vine, and is so strong that upon breaking the wood the rubber still holds.

"In other rubber plants, as far as the known varieties are concerned, there is so much resin and essential oil in the rubber that it is not elastic at all until extracted and treated. It is more of a viscous sap like that of the fig tree. In the new vine, however, there appears to be a total absence of essential oil and resin."

### New Quicksilver District Opened in Texas.

Terlingua, Texas, October 18—[Special.]—Development operations in a new quicksilver district, situated 40 miles east of here, and about 75 miles from the nearest railroad point, are now in progress. Rich cinnabar ore was discovered in that locality about three years ago, but for some reason there was a delay in beginning development work. It is stated that the Ellis Quicksilver Co. is now mining considerable quantities of cinnabar ore in the new district and that plans are being made by the owners of other claims to install equipment for taking out ore.

In the Terlingua district an increase of quicksilver mining activities is noted. The producing district has been widened by the Study Butte Mining Co. which is developing a good producer of cinnabar ore five miles east of here. The company is now installing a new power plant and oil engine. Two miles further east than the mine of the Study Butte Mining Co. is a large outcropping of cinnabar ore that is being successfully mined by the open-cut method by the Mari-  
posa Mining Co.

October 31

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October 31, 1918.]

**Point Isabel, Tex., to Again Become Deep-Water Port.**

Point Isabel, Tex., October 26—[Special.]—After long years of abandonment, the deep-water port of Point Isabel, situated just above the mouth of the Rio Grande, is to be soon restored. The Brownsville & Tampico Marine Transportation Co. has just purchased two ships of small tonnage which are to be placed in regular cargo service between Point Isabel and Tampico, Mexico. The establishment of this coastwise line is preliminary to extending the transportation service to other Gulf coast ports of the United States and Mexico. Slowness on the part of the United States Government in awakening to the importance of improving the port facilities here caused a movement to be inaugurated by the people of the Rio Grande Valley several months ago to provide by means of private subscriptions a fund for deepening the Brazos de Santiago channel, leading to Point Isabel. It is estimated by engineers that this improvement work will cost approximately \$125,000. The different communities of the valley region immediately set out to raise this amount, and it is announced that they have succeeded in their plans. Already a new wharf has been constructed here.

In days gone by Point Isabel was one of the most important ports on the Gulf coast. Before railroad connection with the outside world was obtained regular lines of steamships plied between here and Atlantic ports, bringing in and taking out cargoes, serving a big part of Northern Mexico and Southern Texas.

In 1868 a syndicate of Spaniards who had large business interests in Brownsville and Matamoros constructed what is called the Rio Grande Railroad between Point Isabel and Brownsville, 22 miles. A few years later American interests constructed a railroad from Matamoros down the Mexican side of the Rio Grande to San Miguel. These two short and isolated lines of railway for many years handled the traffic that came through the port of Point Isabel. The Rio Grande Railroad was one of the most unique in its rolling stock and management in the United States. Its primitive type of locomotives, its little freight cars and passenger coaches were brought from Spain, and it was a piece of transplanted Spanish railway in every respect. Even its official records were kept in Spanish.

Since the construction of the St. Louis, Brownsville & Mexico Railroad, which gives Brownsville an outlet to the north, and the connecting up of this line with the Matamoros-Monterrey branch of the National Railways of Mexico by the building of an international bridge across the Rio Grande wonderful strides of agricultural development have taken place in the lower valley of the stream that marks the boundary between the two countries. Approximately 300,000 acres of rice land have been brought under irrigation. Many new and thriving towns have sprung up. With the restoration of tranquility in Mexico it is expected that similar progress will be made in utilizing the rich lands on that side of the Rio Grande within the next few years.

The Brazos de Santiago channel, which is to be deepened, is about two and one-half miles long. It is claimed that the saving of freight to the farmers and business interests of the lower valley will in a very short time more than repay the cost of dredging the channel.

**Proposed Timber Operations Would Open Large Area to Settlement.**

Atlanta, Ga., October 26—[Special.]—The general opening up of a large section of country lying in Jackson county, North Carolina; Ocontee county, South Carolina, and Rabun county, Georgia, is expected to result from the search of the Government for wood with which to carry on the prosecution of the war. One of the immediate benefits of this vast enterprise is expected to be the settlement of this large tract of land by settlers from all sections of the United States, among whom will be many soldiers returning after the war has been won against German militarism.

The Government is just now engaged in plans for cutting out 1,000,000,000 feet of timber for use in shipbuilding and other enterprises. In this work many hundreds of men will be employed, and unprecedented prosperity is expected to accompany the development of the timber resources.

One of the principal things to be done in connection with the Government's enterprise is the opening up of extensive highways, and a considerable amount of money will be expended in improved highway construction, which is expected to be permanent.

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# Potash Potentialities Being Investigated by Government

[Special Correspondence Manufacturers Record.]

Washington, D. C., October 26.

Somewhat more encouraging than accurate was the statement recently appearing in the daily press to the effect that the supervision of potash production in the United States had been undertaken by the War Industries Board, and that prices were shortly to be fixed in agreement with the industry.

Personal investigation by the MANUFACTURERS RECORD correspondent developed the fact that this and similar statements were largely anticipatory of results that may yet be reached by the Government. It is true that, under the terms of the war minerals bill President Wilson has power to direct marked extensions in any of the industries named therein as war necessities may require. It is also true that the question of adequate potash production is one of the most important at the present time, and that the whole question has been turned over to H. G. Carrell, chief of the alkali and chlorine section of the War Industries Board, for such action as may seem proper.

"Government activities at the present moment are in a state of flux as regards this industry," said Mr. Carrell to the MANUFACTURERS RECORD correspondent. "As is generally known, there are inherent difficulties connected with the whole situation. The matter of production costs is one of these, not so much as it relates to present prices as it does to prices which will prevail after the war.

"What the War Industries Board is doing now is to tackle one step after another as the various propositions come up. It has already made a survey of the cement possibilities at a meeting held by the board members with the cement manufacturers early in October. We will hold meetings with the blast furnace operators for the same purpose, probably in November.

"In both cases the intention is to urge them to find out what they can do in the way of turning out potash, both as a manufacturing and business proposition. Those engaged in the cement industry, in which the most has thus far been accomplished, are the most hopeful of results, not only for the present, but also for post-war production. But all have been asked to look at the problem from the viewpoint of considering their industry as a national industry, rather than as an individual industry, and to attack all features of the problem in that light."

The general idea suggested by Mr. Carrell was that the cement and blast furnace men would be encouraged to go ahead to the utmost where they felt reasonably sure of success. It was indicated that not a great amount of capital was required in any of the ventures, and that the War Industries Board will expect the industry concerned to find this capital by combining its resources where necessary. Mr. Carrell, in looking at the subject purely from an industrial standpoint, said that it was all a question of what could be done in times of peace. War prices, he indicated, were one thing with regard to which no apprehensions existed; peace prices, however, will prove to be another and quite different proposition, and it was in connection with them that all ventures would have to be weighed carefully to see whether they would stand the coming test. For this reason the War Industries Board will not branch out extensively into investigations of new sources of potash or new processes for its recovery. It will rather demand, in the latter respect, complete technical demonstration of the feasibility of suggested processes before giving them any encouragement.

Asked as to tariff possibilities, Mr. Carrell said that it may be found desirable or necessary to impose a duty on potash imports sufficiently high to protect the domestic industry from being destroyed. That, however, he intimated, was a matter that rested with Congress to determine. As to the provisions of the war minerals bill with respect to change in duties, he indicated that they were intended largely, if not exclusively, to protect the Government in its contracts and investments. When it is considered that in the case of potash practically the sole Government use is in the manufacture of black powder, and that but a small percentage of the total potash consumption in this country is taken up in that way, the probability of tariff regulation under the terms of the war minerals bill become quite remote.

One of the possible sources of potash which has received considerable attention of recent months is that of the green sands of New Jersey. These "glauconite" deposits are said to contain on an average about 7½ per cent. of K<sub>2</sub>O. While they have been known to possess potash in working quantities for a number of years, it was not until the war that their utilization in a practical commercial manner was given consideration. Experimentation has led to definite plans for development, and it is known that the organization of a company with a capital of \$7,500,000 is now being planned. Much will depend upon the attitude of the Government toward the proposition for its success. Necessities for the advancement of the plans require assurance that there will be granted priorities for the materials required. Waivers regarding further developments in the so-called congested areas must also be granted, and the necessary permission to erect large buildings must be forthcoming. All these rest in the hands of the agencies of the Government to determine.

The possibilities of potash recovery from these green sands are remarkable, according to some of the figures given out. It has been estimated that enough potash is to be found in them to last for thousands of years, one estimate placing the amount at 2,034,000,000 metric tons, or enough to last 4000 years. These figures have not been checked by experts of this Government, but officials of the Geological Survey are inclined to accept them as approximately correct. The sands lie on the surface and extend downward in places to a depth of 30 feet or more. They run through New Jersey, Delaware, Maryland, Virginia, North Carolina, Tennessee and Arkansas, but it is only in New Jersey that they appear to contain potash of any workable commercial value. In many cases the sands are easily mined with the use of a steam shovel.

The methods of treating the green sands are either by digesting them with lime under steam pressure or roasting with salt and lime, leaching the product and then evaporating the liquor to obtain the potash salts. The latter process is quite similar to that employed in cement manufacture, except that the heat is not sufficiently strong to volatilize the K<sub>2</sub>O. Both processes have been tried on a commercial scale, and both claim to be able to produce potash at a cost of production which will enable the manufacturers to compete with German potash.

Considering the development of the industry as a whole, it is encouraging to know that the Government experts do not think any development of processes of recovery in the Eastern and Southern States will have the effect of injuring the commercial enterprises now being conducted in the West, as in the Nebraskan lake brines and at Searles Lake, California. The view is held that, while by far the greater part of the potash used in the United States is consumed in the southeastern portions of the country, there will nevertheless be a large enough demand in the West to absorb the output of the Western sources of supply.

## Southern Landowners' Convention.

A meeting of land owners in the South is to be held at Savannah, Ga., on November 11 and 12, at which Secretary Franklin K. Lane of the U. S. Department of the Interior is to speak on the first day of the meeting, according to the announcements, and to state his definite policy concerning land settlement and land utilization in the future, and also the Government's definite policy with respect to the returning demobilized soldiers.

The meeting, which will embrace interested land owners from the south side of Virginia to the eastern part of Texas, is to be held under the joint auspices of the Southern Settlement and Development Organization, Baltimore; the Cut-Over Land Department of the Southern Pine Association of New Orleans, the Georgia Land Owners' Association, the Florida Cattle Tick Eradication Committee, and the North Carolina Land Owner's Association. A very large attendance is expected.

One of the subjects to be considered and discussed is that of sheep raising in connection with plans for settling and developing unimproved lands.

## Development of Domestic Sources of Potash.

The Committee on Fertilizers of the Chemical Alliance, Inc., has issued the following bulletin:

"In an announcement recently made by the United States Department of Agriculture, Office of Information, the department states its views that this country should develop supplies of potash. The announcement is as follows:

"At a conference on the American potash situation held October 15 in the office of William Wallace Mendenhall, assistant to the Secretary of Agriculture, in charge of fertilizer control, it was stated that the view of the Department of Agriculture is that the Government should do all that is possible to encourage the production of potash from the cheapest sources in this country in order to enable farmers to obtain it at a low price, because foreign supplies are now unavailable.

"Some of the domestic sources of potash that may be further developed are blast furnaces, from the wastes of which potash-bearing materials may be precipitated; cement mills, greensand, certain shales, the brines of some lakes, mostly in Nebraska, and the giant seaweed (kelp) of the Pacific Coast.

"The domestic production of potash for the coming year is expected to be about 60,000 tons, much more than the previous year, but still only about one-fourth of the annual pre-war consumption, according to A. W. Stockett of the Bureau of Mines.

"Representatives of the Bureau of Plant Industry of the Department of Agriculture pointed out that certain crops in the East are showing unmistakable signs of "potash hunger," and the general agreement at the meeting was that farmers should be informed of facts bearing on the value of potash for crop production and that all efforts should be made to supply the farmers' demand.

"The purpose of the meeting was to promote free discussion among the different interests involved in connection with the potash situation. R. C. Warriner, special assistant in fertilizer control, presided. Others who took part in the conference were: Charles H. McDowell of the War Industries Board; Dr. Oswald Schreiner, W. A. Orton and H. A. Edison of the Bureau of Plant Industry; Dr. A. C. True, Bradford Knapp and C. B. Smith of the States' Relation Service; F. H. Brown, A. R. Merz and J. W. Turrentine of the Bureau of Soils; A. W. Stockett of the Bureau of Mines; W. D. Huntington of the Davison Chemical Co. and Frederick Rayfield of Swift & Co., representing the Chemical Alliance; George A. Lee and T. E. Stevens, representing the Nebraska Producers, and E. A. Gold-enweiser, statistician in fertilizer control."

## More Than 100 Houses to Be Erected by Chicago Company at West Ghent, Norfolk.

An important enterprise looking to the erection of a hundred or more houses at Norfolk has been launched by the North Shore Improvement Co., 25 Dearborn street, Chicago, which has purchased approximately 300 lots in West Ghent and is under contract to improve as fast as the buildings are sold. The company expects to break ground about November 1 for 25 buildings, mainly of the two-flat type apartments. The remainder of the proposed building program will be in accord with the recommendations of the United States Housing Corporation, Otto M. Eidlitz, director, 615 G street N. W., Washington, which will stipulate, in giving priority orders for building material, the class of construction which will accommodate the greatest number of people connected with the army, navy and war activities in and around Norfolk.

The buildings presently to be constructed will cost from \$6,000 to \$10,000 each, financial arrangements having been made with the Guaranty Title & Trust Corporation, Norfolk, which has granted 25 loans aggregating \$175,000.

The company also contemplates soon to begin the erection of larger apartments of the kitchenette and unit type.

The Indian River Farms Co., which has 45,000 acres of lands near Vero, Fla., is according to a report from Fort Pierce, Fla., moving its headquarters from Davenport, Iowa, to Vero, closing the offices at Davenport. Many farmers have already settled on the farms.

## Furnace Output in Alabama Not Up to Expectations.

Birmingham, Ala., October 28—[Special.]—Allocations of basic iron through Government sources to the Birmingham furnaces add to the burdens here, and estimates are now to be heard of that will almost take up the probable make for the first half of the coming year. There is still much iron being produced and shipped for export purposes, English and French inspectors being in the district, with prospects of remaining here for some time. In addition to the difficulties experienced by reason of shortage and inefficiency of labor, the influenza epidemic further handicapped the iron business. The raw-material supply has been most uncertain for the last two weeks and longer. Even limestone or dolomite has been exceedingly short, in some instances not more than a half dozen men showing up for work some days in these industries. The furnace output in Alabama is disappointing. It was expected that October would be a banner month of the year. Instead, it will be considered good if the production is up to that of the previous month. As heretofore announced, there are several furnaces in this district ready for the torch right now, or can be gotten in readiness for operation within a very short while. There is further disinclination to start these furnaces until the raw-material supplies are more definite. With the uncertainties of labor and the epidemic holding on more or less, there is no telling when there will be warrant for resumption at these furnaces.

Iron stocks in the South are further reduced. There is not much foundry iron being manufactured now, and the removal of the product from the yards is becoming noticeable. Inquiries continue to come in every day and furnace companies are compelled to turn down some old-time friends, referring them to the Government. The peace talk that has been rampant for some time has not in the least disturbed the iron market in this district. There is simply nothing else to do here but to produce and ship the product. All efforts to increase the production have been without success so far. Some of the consumers, not working on positive essentials, are indicating apprehension that they will have to shut down for the time being unless they can get hold of some iron. While a scarcity of iron was anticipated in many directions, it was not expected that the Government control would be so strong as to cut off practically all iron. Priority orders must be obtained for iron. These orders must be sandwiched in between allocations, if possible.

While much has been said of plants being compelled to work on essentials, there are inquiries being received from many plants. However, many of these plants have made conversions in their operations to produce essentials. For instance, the Stockham Pipefittings Co. in Birmingham is working on steel shapes for ships, with orders in hand that will provide operation for many months to come. The cast-iron pipe plants of this district are also working on other products besides pipe, though the Government is sending in some orders for pipe, for use at cantonments and elsewhere. All foundries and machine shops of the Birmingham district have more or less Government work in hand. There is no doubt that after the Government contracts have been filled and there are no other available, domestic business will be sufficient to keep the plants going.

The coal production in Alabama is down to the lowest mark since previous to July. For the week ending October 19 the coal production in Alabama went to 32,310 tons, against 382,846 tons the week ending October 12, and 409,022 tons the week ending October 5. The tonnage for the past week will be lower still, but a change for the better is now in sight. A. H. Carpenter has been appointed assistant production manager for Alabama, under Judge H. C. Sellheimer, in the Fuel Administration work, and it will be his duty to look after the coke production, to urge the workers on and bring about not only a larger output of coke, but a cleaner production.

An inspection was made of the Warrior River during the past week by G. A. Tomlinson, Assistant Director-General of the United States Railroad Administration, in charge of the inland waterways of the country, and other officials, including naval architects and river engineers. In addition to the old towboats and barges of the Pratt Consolidated Coal Co. and the De Bardeleben Coal Co., now under repairs, it is in-

tended to establish a service on the river between Cordova, Ala., and Mobile and New Orleans that will not only be able to handle coal and coke, but other products as well. Theodore Brent, traffic manager on the Mississippi-Warrior rivers, was here also the past week conferring with large shippers in regard to freight rates on the river. There is an inclination to maintain railroad freight rates on the stream, to which there is to be a protest raised. Assistant Director Tomlinson has intimated that new equipment, and a sufficient amount of it, will be contracted for at once and put into service, and prospects are bright for a good service by late spring of next year.

Scrap iron and steel is moving steadily in this district, and the announcement is made that several contracts are in hand, and much old material will be needed to fill them. The influenza epidemic is still felt, though health authorities announce the disease on the wane.

New sales made recently are nearer the maximum Government quotations than ever before. Heavy melting steel, No. R R wrought and No. 1 cast are the prominent commodities of old material in this district, and the consumption is very steady.

Quotations of pig-iron and steel in this district are as follows:

### PIG-IRON.

No. 2 foundry, \$34 f. o. b. furnaces, Birmingham basing point. Differentials as to silicon same as before. Basic iron, \$33. Next revision in prices January 1, 1919.

### OLD MATERIAL.

Old steel axes.....	\$38.00 to \$40.00
Old steel rails.....	29.00 to 30.00
Heavy melting steel.....	27.00 to 28.00
No. 1 railroad wrought.....	31.00 to 33.00
No. 1 cast.....	31.00 to 34.00
Stove plate.....	25.00 to 26.00
Old car wheels.....	29.00 to 30.00
Old tramcar wheels.....	27.00 to 29.00
Machine-shop turnings.....	16.00 to 17.50
Cast-iron borings.....	17.00 to 19.00

## Features of Kentucky Oil Field Development.

Beattyville, Ky., October 26—[Special.]—Within the past few weeks the center of interest in Kentucky petroleum development has shifted into Lee county, around Beattyville, although many good producing wells have shown up in Estill county, around Irvine; in Breathitt, around Jackson; around Campton, in Wolfe county, and around Stanton, Powell county, while much important new territory is being developed in Johnson, Magoffin, Martin and Floyd and Knott counties, along the headwaters of the Big Sandy River. The Beaver Creek field has also proven an important territory both in oil and gas, a number of good strikes having been made in that section.

Near Prestonburg, in the Beaver Creek territory, the Great Central Oil & Gas Co. struck a good producer this week. The well was struck in the Wier or gas sand, this being the first petroleum well found in this formation in Kentucky. In West Virginia, however, the Wier sand shows up rich wells. The Eastern Gulf Oil Co. is also developing in the Beaver section, having struck three paying wells recently. In that territory the Big Bear Oil Co., composed of Wyoming interests, are acquiring new properties and make the announcement that a drilling campaign will be launched at once.

No less than a dozen oil wells are going down in the Beaver territory. The Louisville Gas & Electric Co., Louisville, Ky., have had representatives in that territory negotiating for their gas supply. If deals are made, pipe lines will be built into the territory the coming year.

In this (Lee) county strikes of from 200 to 300-barrel wells daily are so common that they are only of passing interest. Rarely a day passes that there is not some rich strikes. The Carter Oil Co. struck a 300-barrel well on Thursday of this week on the Pendergrass lease near Beattyville. In the Ravena district the Tidal Wave Oil Co. struck two good-paying wells on Tuesday. They are putting down several more wells. The Seaboard Oil Co. and the Ohio Oil Co., composed of Ohio people, are developing large tracts in Lee county, near this city. The Stanton Oil Co. struck a 300-barrel well on Ross Creek, in Estill county. On a mineral-coal land tract in Lee county the Trinity Oil Co. struck a 100-barrel well at a remarkably shallow depth. The company is making some extensions.

Judge James P. Lewis of Whitesburg and others organized the Star Oil Co. a few days ago with offices in

Lexington. The company has a capital of \$99,000. They will make developments in Eastern Kentucky.

A number of other new companies are being organized in the Kentucky petroleum field. Indications point to much activity in drilling work before the advent of bad weather.

## BARGE SERVICE SUPPLEMENTING RAIL LINES.

### \$6,000,000 Contract for Forty Vessels of 2000 Tons Each and Six Towboats.

It is announced from Washington that the United States Railroad Administration, which controls the transportation facilities of the country, has awarded contracts for six towing steamers and forty steam-propelled barges to be used on the Mississippi River and the Black Warrior River. The total contract price is \$6,170,000. Deliveries of the vessels are to start within two months after the necessary steel is received by the builders, and they are to be completed within 12 months.

It is stated that 25 of the barges will be built by the American Bridge Co., New York, and 15 by the Dravo Contracting Co., Pittsburgh. The Charles Ward Engineering Co. of Charleston, W. Va., will build two tunnel screw towboats, and the Marietta Manufacturing Co. of Point Pleasant, Ohio, will build two tunnel screw towboats and two stern-wheel towboats. The tunnel screw boats will be each 200 feet long, 40 feet beam and 6 feet deep; the stern-wheel boats will be 256 feet long, 48 feet beam and 8 feet deep. Each barge will carry 2000 tons, with a draft of 8 feet.

A report published in the Mobile Register says that it is improbable that any of these vessels will be used on the Black Warrior River; that they are said to be large for service in its waters, and that other vessels, to be either commandeered or built, will provide service on that stream. M. J. Sanders is Federal manager for the service on these two rivers.

Barge and towboat transportation has already begun on the Mississippi, but thus far the capacity of the service is very limited, only about 3000 tons a week being carried, the equipment which is being used being that which the Government has been able to find available. One towboat and two barges which began the service from St. Louis a month ago to New Orleans have completed a round trip. One barge carried Mexican hats and coffee back to St. Louis, the other nitrate, this latter being received from Chile via the ship Faith, the first concrete ship to arrive from there.

## \$2,000,000 Water-works Contract Awarded.

A contract has been awarded to the Ulen Contracting Co. of Chicago and New York by the Emergency Construction Co., Portsmouth, Va., to improve the Portsmouth, Berkley and Suffolk water supply system at an estimated cost of about \$2,000,000. The job includes raising the dam at Lake Cohoon 13 feet, increasing the powerhouse capacity and also the capacity of the filtration basins, laying a 30-inch pipe from Suffolk to Portsmouth and new supply lines under the river at Norfolk, etc. The contractor will immediately erect a temporary office, together with shop and barrack buildings, at the site of the work, its general offices in connection with this contract being in the National Bank of Suffolk Building and construction force offices in the Law Building at Suffolk, Va.

This is in execution of part of the Government's plans recently described to improve the public utilities around and adjacent to Hampton Roads. Captain Moore, R. H. Gordon and H. Q. Kennedy, U. S. A., will supervise the construction.

## Important Concrete Pier Work at Pensacola.

F. G. Proudfoot & Co., contractors, Pensacola, Fla., are constructing a pier and quay wall for the Navy Department at the Pensacola Navy-yard. This work is unique because it has, as part of the construction, 50 and 55-foot reinforced concrete sheet piles, 18x24 inches in section. The contract total is about \$700,000, and the work includes some very interesting features in both design and construction.

This is a double concrete pier 581 feet long and 60 feet wide, with railroad track on both side. The construction is timber and concrete, earth filled. Some creosoted wood piling is also employed. The pier will act as a breakwater, and it also will protect the airplane hangars.



## WOODEN SHIPBUILDERS MUST LOOK TO PRIVATE CONTRACTS.

## Shutting Off New Shipbuilding Work Now Proposed.

Washington, D. C., October 26.—[Special.]—The revision of the Government shipbuilding program, with the cancellation of all contracts for wooden ships which will run into the year 1920, has been announced as the first step toward adapting the shipbuilding industry to the needs of post-war conditions. That the curtailment of the steel shipbuilding will come next is stated by officials of the Shipping Board.

Instead of being a blow at the wooden shipbuilding industry, officials see in the failure of the Government to make contracts past 1919 an opportunity for the yards released from Government orders to begin the work of private shipbuilding when it may be possible to secure more advantageous agreements. It is probable, too, that American shipyards, with their facilities created to meet the war needs of the country, will be able to build ships for foreign nations, and the wooden yards will be in demand for creating coastwise vessels, or ships for the West Indies and Latin-American trade.

It was agreed at conferences some months ago that the war program would have to be thoroughly revised when consideration of contracts for 1920 were taken up, and the moment appears to have arrived.

"The time has come," Chairman Hurley of the Shipping Board says, "when we must begin to ease up. This easing-up process must be applied to steel ships as well as wood ones, but as the number of wood ships already completed, added to the number contracted for, which will be constructed, will fill the demand for ships of that kind, we are curtailing production beyond that point."

Director-General Schwab, in explaining the shipping situation, states that the country is no longer striving to meet an emergency, but is preparing for permanency of production.

Indications are that ship production has about reached the crest, and the danger of overdoing it must be avoided. With consideration of the reconstruction problems comes the question as to what is to be done with the fleets built for the war. With the cessation of the submarine activities and the rapid production of the shipyards, it will not take long to restore the world's tonnage to normal. The question will then arise as to further ship production and the whereabouts of the cargoes which are to fill the vessels.

Recent reports to the Shipping Board show that nearly 4,000,000,000 feet of yellow-pine lumber have been cut and transported to the shipyards of the Atlantic and the Gulf coasts for the construction of wood vessels, or enough to make a floor 25 feet wide, one inch thick and 3000 miles in length. The bridge to France could thus have been built with the yellow pine, leaving about 4,000,000 feet to spare, as well as the tremendous amount of lumber shipped to the Pacific coast shipyards. All the lumber together would have made the bridge 50 feet wide.

A large proportion of the yellow pine used in ship-building has been from the belt running through Texas, Louisiana, Mississippi, Alabama, Georgia and Florida. Many railroad extensions were necessary to bring out the timber from this area, the average rail haul being approximately 20 miles.

This great source of timber supply will continue to yield wood for building ships, and, although the Shipping Board does not intend to enter into any more contracts for wooden ships, unless some unforeseen circumstance should arise, officials express confidence that the industry which has been created and the shipyards which have been built up to meet the national emergency will not languish under peace, but will continue to turn out vessels upon private contracts.

## We Hope So.

**The Sandhill Citizen.**

**Southern Pines, N. C., October 12.**

**Editor Manufacturers Record:**

I enclose check for \$5 for MANUFACTURERS RECORD for one year. The Sandhill Citizen is \$1.50, and I understand we pay the difference, which we are very glad to do. The MANUFACTURERS RECORD is surpassing itself and all other records. Can't get on without it for inspiration and facts.

H. E. Foss.

H. E. FOSS.

## League of Valley Cities for Latin Trade After the War.

New Orleans, La., October 23.—[Special.]—With the entire Mississippi Valley turned into a seaport by the Government's line of barges that will give Memphis, St. Louis, Chicago and other "inland" points lighter connection, so to speak, with ocean tonnage, plans have been launched for a league of the valley cities to make a conquest of the Latin-American trade after the war.

Mexico, Central and South America, as has been said repeatedly, are natural affinities of New Orleans, both socially and economically. New Orleans is essentially a Latin city in feeling. Commercially, it is a thousand or so miles nearer than any other port that could handle the business. And it is the natural confluence of the commerce of 41 per cent. of the United States.

While the form of organization and the methods of operation have not yet been worked out, the general plan has already been approved by many of the larger producing and jobbing centers, including St. Louis, Chicago and Peoria.

The purpose of the league would not be to stifle competition between individual firms, but rather to furnish facilities for trade expansion, such as the names of merchants in foreign countries, credit ratings, methods of doing business, conditions in the various foreign markets and similar practical service.

Another important part of the work would be keeping foreign markets informed of conditions in the valley, its advantages and opportunities.

"St. Louis, Chicago and Peoria are especially anxious to get the work started," said A. J. Boylan, assistant general manager of the New Orleans Association of Commerce, just back from a trip of propaganda work.

"The cities of the valley in general are awake to the necessity of preparing now if they expect to hold their own in the strenuous foreign trade competition that is sure to come after the war. And they realize that with the Mississippi River in use again they have advantages that compare more than favorably with those of any other producing center in the world."

The plan for the league of valley cities fits in ideally with the work now being done by the United States Department of Commerce to encourage national preparation for after-the-war trade competition.

"Any present attempt," as a department report just issued says, "to lay down complete and binding policies regarding the future is now recognized as a waste of effort. What is more important is the assembling of facts, taking the basic step to improve our educational, research and promotive organizations and contributing to clear thinking on the questions involved. Sooner or later we must have a definite program in which work and plans for the future based on known conditions affecting our future may be co-ordinated. The time is now ripe for some more centralized, concerted work to that end." for "England, France, Italy, Germany and Austria are making preparations to resume their peaceful economic life, with improved facilities for foreign trade, with a national supervision of the use of natural resources for the benefit of their own citizens, and with assistance from the State."

Some of America's facilities for after-the-war trade are: The huge merchant marine, now building; the Webb-Pomeroy export trade act, authorizing exporters to combine for foreign trade, and the leeway in foreign trade banking now enjoyed by the Federal Reserve Board and Banking System.

But governments, like Providence, help those who help themselves. The proposed league of cities is the commercial challenge of the valley.

### Wants to Sell Gypsum Sulphur.

J. W. McRAE, Rice Hotel, Houston, Tex.

In looking over odd files I find frequent mention of sulphur as a fertilizer in lieu of potash and Chilean nitrates. If there is a market I will agree to supply up to 2,000,000 tons sulphur 6 to 10 per cent., balance gypsum and limestone, with some magnesia and potash present 1 to 2 per cent. at \$10 per ton f. o. b. cars West Texas points, and at much less cost providing a spur of 20 miles of railroad be built. This can be ground and packed in 100-pound sacks at that price. Can supply 200,000 tons monthly by having 90 days' notice, providing cars be supplied. Have no idea where to start in looking for a market, and will only be able to develop providing sufficient contracts are in sight to justify the equipment investment.

### Noted Speakers at Export Convention

The program of the ninth annual convention of the American Manufacturers' Export Association, held on Wednesday and Thursday of this week at the Waldorf-Astoria Hotel, New York, announced speakers for the banquet, including Sir Henry Babington Smith, K. C. B., Acting High Commissioner for Great Britain; a representative of the French Government; William C. Redfield, United States Secretary of Commerce; Edward N. Hurley, chairman of the United States Shipping Board; Herbert Bayard Swope, assistant to the chairman of the War Industries Board; Frank A. Vanderbilt, president of the National City Bank, New York, and Martin W. Littleton, Representatives of foreign trade organizations, banking and shipping interests and chambers of commerce throughout the country manifested much interest in the convention and a general desire to attend it, and among those organizations which especially named representatives were the National Association of Manufacturers, Philadelphia Commercial Museum, Philadelphia Chamber of Commerce, Silk Association of America, National Implement and Vehicle Association, Milwaukee Association of Commerce, National Retail Dry Goods Association, New York Chamber of Commerce, Southern Commercial Congress, National Association of Electrical Dealers, Association of National Advertisers and Boston Chamber of Commerce.

The various subjects discussed included the following: "Financing Our Foreign Operations After the War," "Education for Foreign Trade Service," "Foreign Advertising," "Patents and Trademarks," "A Genuine Department of Commerce," "Our Ships After the War," and "Sales Organization Abroad." The list of speakers on these general topics and the various subjects under the respective heads included very many widely known men in finance, trade and manufactures through the United States. It comprised bankers, credit men, sales managers, publicity men, steamship owners and managers, manufacturers in various lines of industry and others. The meetings were divided into five sessions.

## Vast Irrigation Project Proposed for Southwest Texas.

Austin, Tex., October 26.—[Special.]—In view of the expectation that the United States Government will enter upon a campaign of reclaiming vast areas of land in the Southwest and West by means of irrigation when the war is over, G. S. Bruce, Federal Immigration and Industrial Agent, with headquarters here, has prepared preliminary plans for the biggest project of this kind ever undertaken in this country. It involves the digging of a canal from a point on the Colorado River, near Austin, to a connection with the Rio Grande, at a point above Eagle Pass, a length of about 200 miles. The scheme provides for the construction of many laterals and ditches, the building of dams and locks for the conserving of the flood waters of not only the Colorado, but of several other rivers which traverse the region that the proposed canal is to run through.

Mr. Bruce estimates that the cost of the canal and irrigation system would be approximately \$100,000,000 and that it would enable the reclamation of more than 12,000,000 acres of land. Practically all of the land that would come under this irrigation system is now used exclusively for ranching purposes. It would be easily possible to grow three crops a year upon the land, it is claimed, and one year's production would be of enough value to more than pay the entire cost of the project.

### \$2,000,000 Street Railway Deal.

Control of the Montgomery Light & Traction Co. of Montgomery, Ala., has passed from Richard Tillis of that city to Isidore Newman & Son, bankers, of New Orleans, La., as the result of negotiations just concluded and representing, it is stated, a stock and real property value of approximately \$2,000,000. It is stated that engineers will be sent to Montgomery as soon as possible by the new owners to plan for general improvements to the street railway and power and light plants. It is expected that about \$250,000 will have to be expended. Mr. Tillis will continue to manage the company until the purchasers are ready to take charge. He has conducted the street-railway business in Montgomery for several years, but inability to obtain additional equipment lately has hampered operations.

## Good Roads and Streets

### Bonds Voted.

Kieshauee, Fla.—Osceola county issued \$48,500 bonds for road and bridge construction.  
 Roby, Tex.—Fisher county voted \$50,000 bonds for road construction.  
 Stephenville.—Erath county voted \$150,000 bonds for road construction.

### Bonds to Be Voted.

Port Smith, Tex.—Tarrant county contemplates voting on \$400,000 bonds for road construction.  
 Monroeville, Ala.—Monroe county votes November 5 on \$105,000 bonds for road and bridge construction.  
 St. Petersburg.—Pinellas county will issue \$20,000 bonds for road and bridge construction.  
 Vernon, Tex.—City plans \$35,000 bond issue for street and water-works improvements.

### Contracts Awarded.

Clarksville, Ark.—Johnson county awarded contract for macadam and asphalt road construction, for which State has appropriated \$60,000.  
 Fayette, Ark.—City let contract for 14,000 square yards asphaltic or bituminous macadam paving, with 15,000 linear feet of curb and gutter.  
 Frostproof, Fla.—Polk county let \$18,613 contract for sand-clay road construction.  
 San Antonio, Tex.—City let contracts for street paving costing \$13,000.  
 San Antonio, Tex.—City let \$4000 contract for street improvement.  
 Washington, D. C.—Navy Department let \$48,115 contract to construct concrete road.

### Contracts to Be Awarded.

Birmingham, Ala.—Lamar county receives bids until November 22 to grade, drain and gravel highway, requiring 31,634 cubic yards earth excavation, 6.14 miles of clearing and grubbing, etc.  
 Blytheville, Ark.—City will open bids about November 1 for 2 miles of concrete street paving, 20 to 50 feet wide, costing \$87,000.  
 Bunnell, Fla.—Flagler county appropriated \$5000 for highway construction, toward which State will contribute additional amount.  
 Camp Greene, N. C.—Government plans \$100,000 expenditure for concrete road construction.  
 Canyon, Tex.—Randall county contemplates constructing roads involving 53,527 cubic yards of excavation and 20,800 linear feet of grading.  
 Chattanooga, Tenn.—Government, State and Hamilton county will construct concrete driveway from Fort Oglethorpe to Chattanooga, for which \$105,000 is available.  
 Harrisburg, Ark.—Polk county opened bids October 21 for 25 miles of graded earth-road construction, involving 185,000 cubic yards of excavation, 20 acres of clearing and grubbing, etc.  
 Kansas City, Mo.—City will receive bids about November 15 for 5534 square yards of vitrified brick block paving costing \$30,000.  
 Osceola, Ark.—Mississippi county will construct 46 miles of graded earth-road construction, requiring 275,000 cubic yards of excavation, for which bids were opened October 29 and October 30.  
 Winston-Salem, N. C.—City will expend \$12,000 for street paving.

### Highway Congress Called to Discuss Nation's Need for Improved Roads.

Important meetings in the interest of highway improvement will be held in Chicago the week of December 2, under the auspices of the American Association of State Highway Officials and the Highway Industries Association.

This meeting will serve to bring together the leading officials of the various States and the National Government having directly to do with highway improvement, and also the various industries immediately interested in the construction, maintenance and use of highways.

The sessions of the American Association of State Highway Officials will be held in the La Salle Hotel, Chicago, December 2, 3 and 4, and those of the Highway Industries Association in the Congress Hotel, Chicago, December 4, 5 and 6.

The program for the sessions of the American Association of State Highway Officials is as follows:

#### DECEMBER 2—MORNING.

President W. D. Uhler, Lieut.-Col., U. S. A., Presiding.  
 President's Annual Address.  
 The Present Situation and How We Are Meeting It.  
 In New England—Col. W. D. Sohler of Massachusetts.  
 In the East—John N. Mackall of Maryland.  
 In the Central West—W. O. Hotchkiss of Wisconsin.  
 In the South—W. S. Keller of Alabama.  
 In the West—Ira R. Browning of Utah.  
 On the Pacific Coast—Chas. F. Stern of California.  
 Each speaker will briefly summarize conditions in his section under the following heads: (1) Construction in 1918 compared to other recent years. (2) Special arrangements made for constructing work, 1918. (3) Cost of work compared to costs in recent years. (4) Changes in engineering

arrangement. (5) Plans for 1919. (6) Public sentiment in regard to road work. (7) Proposed legislation of especial interest.

It is hoped that from these very brief summaries a comprehensive idea can be gotten of the general national highway situation and of the steps taken in all sections to meet the emergency.

#### AFTERNOON.

Vice-President A. R. Hirst of Wisconsin, Presiding.  
 The afternoon program will be devoted to a discussion of a few of the more pressing administrative problems confronting highway officials in their efforts to construct highways.

#### General Topic: Ways of Doing Construction.

- (a) Contracts, Unit Price and Cost Plus—Arthur W. Dean of Massachusetts.
  - (b) Day Labor and Force Account Work, Bonuses—Charles M. Upham of Delaware.
  - (c) Utilizing More Mechanical Devices—F. F. Rogers of Michigan.
  - (d) Convict Labor—T. J. Ehrhart of Colorado.
- General Topic: Materials of Construction.
- (a) Car Shortage, How Can It Be Met—Clifton Cowan of Ohio.
  - (b) Bituminous Materials, the Situation and the Remedy: Storage Facilities—Provost Hubbard of the United States Highway Council.
  - (c) Steel for Bridges, the Situation and a Recommended Bridge Policy—Clifford Older of Illinois.

Topic: Engineers for Highway Work—John H. Mullen of Minnesota.

#### EVENING.

- George P. Coleman of Virginia, Presiding.  
 Illustrated Talks:
- (1) Notable American Highway Construction—P. St. J. Wilson of the United States Office of Public Roads.
  - (2) Recent Damage to Eastern Highway Systems—W. G. Thompson of New Jersey.
  - (3) Convict Labor in Road Work—T. J. Ehrhart of Colorado.

#### DECEMBER 3—MORNING.

Col. W. D. Sohler of Massachusetts, Presiding.  
 Co-ordinating State Highway Systems—C. M. Babcock of Minnesota.  
 Discussion led by J. J. Murray of Tennessee.  
 Snow Removal from Country Highways—G. H. Biles of Pennsylvania.  
 Discussion led by A. H. Hinkle of Ohio and Stoddard R. Bates of Vermont.  
 Preparing for After We Have Won the War—S. E. Bradt of Illinois.  
 Discussion led by Wm. F. Cocke of Florida and Max F. Cunningham of Oklahoma.

#### AFTERNOON.

Thomas H. McDonald of Iowa, Presiding.  
 Regulation of Horse-Drawn Vehicles—H. C. Beard of Iowa.  
 Discussion led by Edwin Duffey of New York.  
 Eliminating Grade Crossings With Railroads—W. S. Gearhardt of Kansas.  
 Discussion led by W. S. Falls of North Carolina.  
 Proper Engineering Treatment of Necessary Railroad Grade Crossings—Rodman Wiley of Kentucky.  
 Discussion led by John H. Lewis of Oregon.  
 The Maintenance of Sand Roads—George A. Duren of Texas.  
 Discussion led by H. R. Carter of Arkansas and X. A. Kraemer of Mississippi.

The program of the Highway Industries Association meeting at the Congress Hotel is as follows:

#### DECEMBER 4—MORNING.

W. D. Uhler, President American Association of State Highway Officials, Presiding.  
 Address of Welcome—Hon. Frank Lowden, Governor of Illinois. Response to Address of Welcome, Edwin S. Duffey of New York for the American Association of State Highway Officials; S. M. Williams of Ohio for the Highway Industries Association.  
 Highway Control by Federal Government Under War Conditions—Logan Waller Page, Chairman United States Highway Council.  
 The Development of Motor Parcel Post Routes—Hon. James I. Blakeslee, Fourth Assistant Postmaster-General.

#### AFTERNOON.

S. M. Williams, President Highway Industries Association, Presiding.  
 Highways: A Neglected War-Time Necessity—Hon. James M. Cox, Governor of Ohio.  
 A Suggested National Highway Policy and Plan—E. J. Mehren, Editor Engineering News-Record.  
 Highway Transportation, Present and Future—Roy D. Chapin, Chairman National Highways Transport Committee.

#### EVENING.

S. T. Henry, Third Vice-President Highway Industries Association, Presiding.  
 Highways a Military Necessity.  
 The Nation's Needs for Highway Development.

#### DECEMBER 5—MORNING.

E. J. Mehren, Vice-President Highway Industries Association, Presiding.  
 The Underlying Principles of Laying Out, Marking and

Maintaining a State Trunk Highway System—A. R. Hirst of Wisconsin.

Discussion led by Paul D. Sargent of Maine and J. W. Bliss of North Dakota.  
 Proper License Fees for Motor Vehicles and Drivers—H. Eltinge Breed of New York.  
 Discussion led by A. G. Batchelder of the American Automobile Association, A. R. Fletcher of California and Duncan Bule of Louisiana.

#### AFTERNOON.

George P. Coleman, Chairman Executive Committee American Association of State Highway Officials, Presiding.  
 Motor Trucks and Trailers Transportation Essentials; Regulation of Speed, Weight, Width and Height Necessary, but Should Not Restrict Their Expanding Use—Geo. M. Graham, Chairman Motor Truck Committee, National Automobile Chamber of Commerce.  
 Discussion led by Chas. J. Bennett, State Highway Commissioner of Connecticut; A. D. Williams of West Virginia; Frank H. Zouck of Maryland; A. W. Graham of Missouri, and T. R. Dahl of Ohio.  
 American Highways for Tomorrow—H. G. Shirley, Secretary Highway Industries Association.  
 Discussion led by P. St. J. Wilson, Chief Engineer of the United States Office of Public Roads and Rural Engineering, and Geo. E. Johnson of Nebraska.

#### DECEMBER 6—MORNING.

S. M. Williams, Presiding.  
 The Activities of the Highway Industries Association—H. G. Shirley, Secretary.  
 Conditions We Are Facing—S. M. Williams.  
 Discussion by Portland Cement Association, National Paving Brick Association, National Crushed Stone Association, National Slag Association, National Association Sand and Gravel Producers, National Association Asphalt Block Manufacturers, National Association Road Machinery Manufacturers, Motor and Accessory Manufacturers, National Automobile Chamber of Commerce, Concrete Mixer Association, Granite Paving Block Manufacturers' Association, and others.

### Highways Authorized in Texas.

Austin, Tex., October 26.—[Special.]—At the recent monthly meeting of the State Highway Commission aid for the following highway construction projects was granted:

Taylor county, highway No. 7, \$9700; Taylor county, highway No. 30, Federal aid \$20,800 heretofore granted increased to \$30,000; Comal county, highway No. 2, \$8750 additional State aid and Federal aid increased from \$25,750 to \$29,750; Freestone county, order granting \$70,000 on highway No. 32 reformed and re-appropriated; Freestone county, highway No. 32, \$5000; Ward county, highway No. 17, \$10,042; Shackelford county, highway No. 1, increased from \$24,078 to \$30,679.

Intercounty highway was designated, beginning at Canyon, thence to Hereford, thence to Farwell.

Highway No. 4 was more definitely designated, beginning at North Roby, thence to Rotan, thence to Double Mountain Fork Bridge, thence to Aspermont.

### Road Meeting Postponed.

In the interest of public health the meeting of the Southern Appalachian Good Roads Association, which was to be held at Asheville, N. C., has been indefinitely postponed, according to a letter to the MANUFACTURERS RECORD from President A. D. Williams.

### Important Improvements on the B. & O.

The Baltimore & Ohio Railroad has given a contract to the Vang Construction Co. of Cumberland, Md., to enlarge its yards at Grafton, W. Va., which are to be doubled in size. A large force has already been put at work on this job, which will include changing the course of Three Forks Creek for a long distance at Lexanulston. Several nasty curves east of Grafton will be eliminated, or much eased, so that heavy coal trains may be started up the mountain with greater facility than is now possible.

Machine shops and a new roundhouse are also to be built at Grafton, so as to improve the means of maintaining the efficiency of locomotives on the third division of the road.

A contract has also been awarded by the railroad to the same construction company to make improvements at Rinard, near Terra Alta, W. Va., which is east of Grafton. About 200 men are working there.

Contractors are pushing the work of double-tracking the Baltimore & Ohio's line between Fairmont, W. Va., and Connellsville, Pa., 70 miles. Considerable of this second track is expected to be in use before winter begins, so that the movement of coal will be much expedited. There are from 30 to 40 steam shovels engaged on this improvement, and every effort is being made to complete it soon.



# Construction Department

## EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

## DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

## AIRPLANE PLANTS, STATIONS, ETC.

S. C., Sullivan's Island.—Army Construction Division let contract to Simons-Mayrant Co., Charleston, S. C., to construct hydroplane station.

Tex., Galveston.—Naval Air Station.—Navy Department, Lieut. L. B. Hyde, Chief Engr. Air Service of Galveston Dist., American National Insurance Bldg., selected site for temporary airplane station; location is sufficiently near to permanent station to permit use of same railway spurs, sewer connections, etc. (Details of permanent station lately noted.)

## BRIDGES, CULVERTS, VIADUCTS

Ark., Little Rock.—Pulaski County Improvement Dist. will invite bids to construct \$625,000 bridge; reinforced concrete arch type structure; 2000 ft. long; 56 ft. wide, with 40-ft. roadway; Hedrick & Hedrick, Engrs., Interstate Bldg., Kansas City, Mo. (Lately noted.)

Fla., Kissimmee.—Osceola County Commrs. issued \$46,500 bonds for bridges and roads in Dist. No. 3.

Ala., Monroeville.—Monroe County votes Nov. 5 on \$195,000 bond issue to construct bridges and roads. M. McFountain, Judge of Probate.

La., Shreveport.—City let contract Dutton & Natting, 709 Louisiana Ave., Shreveport, to construct pile trestle and lay four 16-in. lines of universal pipe.

Mo., Parkville.—Platte County issued \$20,000 bonds to construct bridge; Irvine Willis, County Engr., Platte City.

N. C., Fayette.—City, Jas. D. McNeill, Mayor, will expend about \$3000 to erect 2 bridges; contracts practically awarded locally. (Lately noted.)

Okla., Claremore.—Rogers County Commrs., I. W. Shack, Chrmn., will construct steel bridge over Verdigris River; bids until Nov. 16; W. J. Eldridge, County Clerk. (See Machinery Wanted—Bridge Construction.)

Texas, Lockhart.—Caldwell County Commissioners let contract to R. Edes for steel bridge over Plum Creek. (Lately noted.)

Tex., Dallas.—City contemplates construction of reinforced bridge at Gaston and College Aves.; probable cost \$5000. Address The Mayor.

Tex., Dallas.—City contemplates constructing reinforced concrete bridge at Gaston and College Aves. to replace wooden structure; cost \$5000; Hal Moseley, City Engr.

Va., Hanover.—State Highway Commr. let contract to W. E. Carter, 204 Remington Bldg., Richmond, Va., on percentage basis, estimated cost \$25,000, to construct reinforced concrete bridge across North Anna River on Washington Highway, between Hanover and Caroline County.

W. Va., Buckhannon.—Upshur County Court, Ernest Phillips, Clk., rejected bids for concrete bridge across Buckhannon River; receive new bids. (Bids lately noted for Oct. 16.)

## CANNING AND PACKING PLANTS

Ark., Foreman.—D. A. Cook and others are considering establishment of meat-curing plant and slaughter-house.

Fla., Fort Myers.—American Fish Products Co., Fort Myers, and Ocean Leather Co., New York, plan \$1,000,000 investment for fish canning, dehydrating, etc.; purchased site on Caloosahatchee River; erect 2-story, 100x50-ft. fireproof building, over river front, on concrete piling, with 12-ft. wharf on both

sides; locate dehydrating stations at Boca Grande, Sanibel Island, Carlos Bay, Caxambas, Lostman's River and Bahia Honda; each station to have daily capacity 2 tons fish; will catch fish, crabs, etc.; can various kinds of fish; manufacture fish products. (Noted in September, under Miscellaneous Factories; also under Fertilizer Factories.)

Fla., Miami.—Armour & Company, main office Chicago, will build branch meat-packing plant.

Fla., St. Petersburg.—Taylor Fruit Co., Largo, Fla., will install fruit-packing equipment.

Fla., Oldsmar.—Reeds Farm Co., Fred. L. Cook, Pres., contemplates establishment of packing-house.

S. C., Tatum.—Stewart & Company organized; will establish cannery noted in Sept.; D. W. Stewart, Pres.-Mgr.; E. E. Stewart, V.-P. and Secy.; have buildings; install equipment for daily capacity 20,000 to 25,000 cans sweet potatoes, sugar corn, vegetables and cane syrup; also erect canmaking plant. (See Machinery Wanted—Boilers; Engines.)

## COAL MINES AND COKE OVENS

Ala., Birmingham.—Sellers Coal Co., capital \$100,000, inceptd. by E. M. Sellers and others.

Ky., Evans.—Benito Coal Co., Middletown, Ky., organized; Samuel Bennett, Pres.; W. M. Young, V.-P., Knoxville; S. E. Bennett, Secy.-Treas.; develop 631 acres; no machinery needed at present. (Lately noted inceptd., \$25,000 capital.)

Ky., Louisville.—Gordon-Miller Coal & Coke Co. plans to erect power plant and install electrically-driven machinery.

W. Va., Charleston.—New Gauley Coal Corp., 1101 Union Bldg., lately noted inceptd., \$10,000,000 capital, will hold 50,000 acres in West Virginia near railroad now under construction by Kanawha & Michigan Ry.; probably not develop at present; prospect and acquire properties in Nicholas and other counties. (Lately noted incorporators include Samuel B. Howard, Louis H. Gunther, Paul Smith, Geo. V. Rellly and Harry O'Loughlin, all of New York.)

W. Va., Fairmont.—Domestic Coke Corp., Frank H. Ginn (of Tolles, Hogsett, Ginn & Morley), Pres., Cleveland, O., let contract to H. Koppers Co. of Pittsburgh, Pa., at \$3,000,000 to install 60 coke ovens; will consume 1200 tons of coal daily and produce 450 gals. of oil and 13½ tons of ammonia sulphate; has 45-acre site; Government will finance construction; company has option of acquiring full ownership at end of war.

W. Va., Monongalia County.—Fairmont-Lowesville Coal Co., Fairmont, W. Va., inceptd., capital \$100,000, by John Y. Hite, B. W. McClure, R. R. Hunsucker and others.

W. Va., Swiss.—Kanawha Collieries Co., Charleston, W. Va., inceptd., \$100,000 capital, by Harold P. Tompkins, Edward Gebhart of Charleston, and C. H. Martin, Mount Hope.

W. Va., Swiss.—Kanawha Collieries Co., 297 Charleston National Bank Bldg., Charleston, W. Va., organized; Wm. G. Conley, Pres.; Edw. Gebhart, V.-P.; Harold P. Tompkins, Secy., Treas. and Mgr.; develop 1200 acres at present; daily output 1000 tons; has opened mining machinery bids. Lately noted inceptd., \$100,000 capital. (See Machinery Wanted—Building Materials; Power-plant Equipment.)

## COTTON COMPRESSES AND GINS

Ark., Gregory.—Gregory Gin Co. increased capital from \$8000 to \$15,000.

Ga., Springfield.—R. M. Davidson and others will install cotton gin.

## COTTONSEED-OIL MILLS

N. C., Wilmington.—Universal Oil Co., capital \$50,000, inceptd. with John R. C. Boyer, Pres., Cranford, N. J.; W. A. Worth, V.-P. and Mgr., Petersburg, Va.; R. H. Hubbard, Secy., New York; purchased Universal Oil & Fertilizer Co.'s plant at Hall and Dickinson Sts., including site 326x330 ft.; reconstruct interior of plant, install machinery and increase capacity; install small oil refinery; discontinue fertilizer department; manufacture cottonseed, peanut and coconut oils, etc.

## DRAINAGE SYSTEMS

Fla., Jacksonville.—Baldwin Drainage Dist. contract has been relet (for completion), by Isham Randolph & Co., Engrs., Chicago and Jacksonville, to Wills & Sons and McCarthy, local contractors; work includes 95 mi. main and lateral ditches, largely completed.

## ELECTRIC PLANTS

Ala., Wayne.—City plans to improve electric-light plant and install new machinery; cost about \$25,000. Address The Mayor.

Ark., Havana.—Kyle & Company will install electric-light plant to supply city lighting.

Ala., Montgomery.—Isadore Newman & Sons, New Orleans, La., purchased Montgomery Light & Traction Co.'s property, including electric-light plant and street railway; reported to expend about \$250,000 in rehabilitating street railway and for other improvements; transaction is understood to involve \$2,000,000.

Ga., Summerville.—City will install electric-light system; John D. Taylor, Pres. of Summerville Cotton Mills, interested.

Ky., Louisville.—Louisville Gas & Electric Co. contemplates additions and extensions to supply power for war industries.

Ky., Whitesburg.—Elkhorn Jellico Coal Co. will build addition to power plant.

Md., Baltimore.—Mt. Vernon-Woodberry Mills, 506 Continental Bldg., let general contract to Gladfelter & Chambers, 36th St. and Roland Ave., Baltimore, for power-house; 1 story; 40x100 ft.; plans by Jos. Evans Sperry, Calvert Bldg., Baltimore.

Tex., San Angelo.—C. C. McBurnett will construct electric plant for Angelus Hotel; cost \$12,000.

Va., Norfolk.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, D. C., is receiving bids for electric-light power plant; cost \$6000.

Va., Quantico.—Bureau Yards and Docks, Washington, D. C., plans to construct \$45,000 electric-generating station.

## FERTILIZER FACTORIES

Fla., Dunnellon.—Florida Fertilizer Milling Co., Ocala, Fla. (lately noted inceptd., \$100,000 capital), organized; F. D. M. Strachan, Pres., Brunswick, Ga.; Geo. F. Armstrong, V.-P., Savannah, Ga.; Jack Camp, V.-P.; Clarence Camp, Secy., both Ocala; has completed \$15,000 frame and galvanized-iron building; installed 4 mills, 2 rotary driers, elevators, etc., cost \$25,000; daily capacity 200 tons pulverized hard-rock phosphate.

## FLOUR, FEED AND MEAL MILLS

Ga., Springfield.—R. M. Davidson and others contemplate installing gristmill.

Md., Ellicott City.—C. A. Gambrell Mfg. Co., 110 Commerce St., Baltimore, will erect additional boiler-house; reinforced concrete, slag roof, steel sash and galvanized work; let contract to West Construction Co., 908 American Bldg., Baltimore.

Okla., Muskogee.—Grain Elevator.—Midland Valley Milling Co. will rebuild grain elevator at L and Dorchester Sts. reported burned at loss of \$30,000 on building and machinery.

Tenn., Dyersburg.—Ewell Milling & Grain Co. will install 50-bbl. mill; equipment purchased; increased capital from \$10,000 to \$25,000. (See Miscellaneous Enterprises.)

## FLAUNCE AND MACHINE PLANTS

Ala., Birmingham.—Stoves.—Cobb Stove Co., capital \$3000, inceptd. by W. S. Cobb and others.

D. C., Washington.—Boiler Plant Extension.—Bureau of Yards and Docks, Navy Dept., Washington, let contract at \$15,000 to Hyde & Baxter, 711 Thirteenth St., Washington, to construct boiler plant extension. (Noted in Aug.)

Ky., Lexington.—Water Heaters.—Harry A. Musser of Central Kentucky Gas Co. plan organization of company to manufacture Musser house-air-water-heater.

Mo., St. Louis.—Machinery.—Dixie Machinery Mfg. Co., capital \$30,000, inceptd. by Henry P. Mueller, Edward H. Frickey and W. A. Dunham.

Md., Baltimore.—Fuse Plant.—Barber Hayward Co., Scott and McHenry Sts., will build fuse plant; Parker, Thomas & Rice, Archts., Union Trust Bldg., Baltimore.

N. C., Wilmington.—Castings.—Liberty Shipbuilding Co. leased Cape Fear Machine Works and will operate; use output of castings in construction of concrete tankers being built for Government.

Va., Alexandria.—Torpedo Assembling Plant.—Navy Dept. let contract Fleischman Construction Co., 531 7th Ave., New York, at \$800,750 to construct naval torpedo assembling station. (Lately noted.)

Va., Yorktown.—Mine-filling Plant.—Navy Department, Washington, has plans for mine-filling plant to cost \$194,800, 5 storage buildings to cost \$750,000, and 10 magazine buildings to cost \$30,000.

## GAS AND OIL ENTERPRISES

Ala., Montgomery.—Waco Gasoline & Oil Co., F. C. Schwend, Secy., Box 351, lately noted inceptd., capital \$15,000, is selling agency for gasoline and oils.

Ala., Montgomery.—Oil Refinery.—De Jarnette Refining Co. has increased capital from \$10,000 to \$25,000.

Ark., Little Rock.—Texas Ranger Oil Co., capital \$25,000, inceptd.; D. H. Echols, Pres.; J. J. Daniels, V.-P.; W. R. Adeock, Secy.-Treas.

Ky., Lexington.—Excel Oil & Gas Co. chartered with \$100,000 capital by Samuel Wolberg of Lexington, Barney Wolberg of Baltimore, Morris Sidelink of New York, and others.

Okla., Muskogee.—Miller Development Co., capital \$50,000, inceptd. by J. P. Miller, H. A. Aldridge and L. C. Siler.

Okla., Oklahoma City.—Filling Station.—Magnolia Petroleum Co., Galveston, Tex., reported to erect \$2500 brick filling station.

Okla., Oklahoma City.—Filling Station.—Sinclair Refining Co. will erect \$6000 filling station.

Okla., Walters.—Walters Gas Co., capital \$50,000, inceptd. by H. H. Kline, Walters; B. O. Mahaffey and E. R. Christman of St. Louis, Mo.

Okla., Frederick.—Oil Refinery.—Red River Refining Co., capital \$100,000, inceptd. by F. M. Parris of Frederick, C. H. Travis of Lawton, Okla., and others.

Texas.—Tex-Penn Oil Co., capital \$2,000,000, inceptd. by A. H. Clarke, J. M. Holliday and S. A. McCuskey, all of Pittsburgh, Pa.

Tex., Thurber.—Oil Refinery.—Texas & Pacific Coal Co. increased capitalization from \$4,000,000 to \$5,000,000; is reported planning oil-land development and erection of oil refinery.

Tex., Wichita Falls.—Floydada Oil Co., capital \$20,000, inceptd. by F. M. Butler, C. Surginer and T. J. Taylor.

W. Va., Charleston.—Cannon Oil & Gas Co., inceptd., \$50,000 capital, by Joseph Fink, Henry Finkel, both of Washington, Pa.; Bennie Klue, Canonsburg, Pa., and others.

## HYDRO-ELECTRIC PLANTS

Ga., Springfield.—R. M. Davidson and others are having creek surveyed; contemplate developing water-power and supply electricity to Springfield and industrial plants.

## ICE AND COLD-STORAGE PLANTS

Ala., Anniston.—Dairymen's Milk Products Co. will install 3-cylinder unilow refrigerating machine of 15 tons capacity. (See Miscellaneous Enterprises.)

Fla., Miami.—J. G. Crosland Co., capital \$50,000, inceptd.; J. G. Crosland, Pres.; C. H. Froe, V.-P.; P. A. Dampier, Secy.-Treas.

Va., City Point.—Virginia Ice & Cold

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Storage Co. Incptd., capital \$30,000; Henry Sherman, Pres.; N. C. Ellis, Secy.-Treas.; both of City Point.

IRRIGATION SYSTEMS

Tex., Fort Stockton.—Zimmerman Irrigated Land Co. is proceeding with construction of 2-mi. concrete dam across Pecos River; reported cost \$150,000.

IRON AND STEEL PLANTS

Ark., Mena.—Blast Furnace.—J. B. Brimm, Birmingham, Ala., and S. F. Novotny (Pres.) of Manganese Mining & Development Co. (of Mena) are reported interested in proposed establishment of blast furnace for ore reduction.

LAND DEVELOPMENTS

Ala., Calais.—Calais Farm & Stock Co., capital \$15,000, Incptd.; F. M. Jackson, Pres.; Mrs. J. P. Selman, Treas.; W. A. Paille, Secy.; all of Birmingham.

Fla., Moore Haven.—Liberty Point Co., capital office Tampa, Incptd., with \$30,000 capital to own and operate farms, groves, etc.; will develop several hundred acres on Lake Okechobee, 6 mi. from Moore Haven; A. C. Okechobee, Pres.; R. M. Lewis, V.-P.; C. H. Lewis, Secy.-Treas.; H. A. Kilgore, Mgr.; all of Tampa, Fla.

Md., Baltimore.—Park Board appropriated \$50,000 for St. Paul St. improvements and \$10,000 for Civic Center (additional to previous appropriations.)

LUMBER MANUFACTURING

Ark., Clarendon.—Galloway-Kennedy Co. increased capital from \$40,000 to \$75,000.

Ala., Fayette.—Southern Lumber Co. increased capital stock to \$50,000.

Fla., Oldsmar.—R. E. L. Pryor purchased 500 acres fallen timber; will manufacture cross-ties.

Fla., Pensacola.—Star Lumber Co. organized, capital stock \$100,000; L. H. Dinkins, Pres., New Orleans; E. J. Buck, Secy., Mobile, Ala.; company purchased timber rights of Union Land & Timber Co. on 17,000 acres at junction of Perdido and Sty Rivers, and is installing sawmill.

Ga., Albany.—F. L. Gordy, T. H. Miller and S. L. Steadman will incorporate F. L. Gordy Lumber Co., capital stock of \$25,000 with privilege to increase to \$250,000; plan to operate sawmill, etc.

Ky., Whitesburg.—McKinney Lumber Co., Pikeville, Ky., purchased 600 acres timber land on Blackburn Creek in Pike County; will develop.

La., Lake Charles.—Powell Lumber Co. will build sawmill.

Miss., Biloxi.—Henry Krohn will rebuild sawmill reported burned at loss of \$3000.

Tex., Texarkana.—Four States Lumber Co. increased capital stock to \$75,000.

METAL-WORKING PLANTS

K. C., Tatum.—Stewart & Company, D. W. Stewart, Pres.-Mgr., will erect can-manufacturing plant in connection with vegetable and cane syrup cannery to be established. See Canning and Packing Plants. (See Machinery Wanted—Boilers; Engines.)

Va., Norfolk.—Structural Steel, etc.—Liberty Iron & Wire Co., 400 McKevitt Bldg., organized; W. A. Farish, Pres.; E. J. Nalls, V.-P.; R. E. Davis, Secy.-Treas.; C. M. Smith, Supt.; product: ornamental iron, structural steel, bronze, brass and wire work. (Lately noted Incptd., \$25,000 capital.)

MINING

Ark., Batesville.—Ferro-Manganese.—Junius E. Case (with Adams & Shell, dealers in real estate and manganese land) is interested in proposed construction of 200-ton roller to manufacture ferro-manganese; preliminary company organized; probably use crude oil for fuel. (Adams & Shell and Barhoff & Dowell lately noted in connection.)

Ark., Batesville.—Manganese.—Arkansas Manganese & Mining Co. chartered with \$75,000 capital; P. J. Concannon, Pres.; P. F. Peterson, V.-P.; A. B. Forney, Secy.-Treas.

Ark., Batesville.—Manganese Oil Co. chartered with capital stock of \$25,000 by W. D. Fese, L. A. Laughlin and W. B. Kennedy.

Ark., Batesville.—A. J. Edwards will construct washing plant; cost \$40,000.

Ark., Batesville.—Manganese.—J. C. Johns-

ton is reported to develop 244 acres of manganese land, 10 mi. from Batesville; J. P. Miles, County Surveyor, completed surveys.

Ark., Harrison.—North Star Mining Co. Incptd. with F. C. Heywood, Gen. Mgr.; consolidated North Star Mining Co. and Lone Star Mining Co.; plans to build 2 mills.

Fla., Lake Weir.—Sand and Gravel.—Lake Weir Washed Sand Co. Incptd. with capital stock of \$20,000; E. W. Ellis, Pres. and Gen. Mgr.; C. G. Rose, Secy.-Treas.

Ga., Atlanta.—Granite.—Elbert Blue Granite Co. Incptd. with \$74,800 minimum and \$300,000 authorized capital stock; Robert L. Foreman, George S. Lowndes and George R. Donovan, Incorporators.

Okla., Hockerville.—Lead and Zinc.—Miami Volunteer Mining Co., Commerce, Okla., will build \$65,000 concentrating plant.

Okla., Hockerville.—Lead and Zinc.—Diamond Joe Mining Co., Miami, Okla., will build 20-ton concentrating plant costing \$60,000.

Okla., Picher.—Oko Mining Co., Joplin, Mo., A. Meyerhoff, Supt., will construct 250-ton concentration plant.

Okla., Picher.—Amy T. Mining Co., E. Ballinger, Supt., will build 200-ton concentration plant.

Okla., Picher.—La Salle Mining Co., C. L. Funk, Supt., will enlarge concentration plant to capacity of 500 tons.

S. C., Smyrna.—Piedmont Mining Corp., 100½ W. Robinson St., Gaffney, S. C., lately noted Incptd., will develop mines; Wm. Guest, Pres.-Mgr.; S. L. Settemeyer, Secy.-Treas. (See Machinery Wanted—Hoisting (Mine) Machinery.)

Va., Vesuvius.—Manganese and Iron Ore.—A. S. Adams of Rocky Mount, Va., and associates purchased Red Mountain tract of manganese and iron-ore land; 8000 acres; will develop; has railroad facilities.

Va., Garrisonville.—Pyrites.—Western Pyrites Co., U. B. Curtis, Pres., Washington, D. C., acquired Old Dominion Sulphur Co.'s property at Garrisonville and will develop; produce 100 tons pyrites daily for delivery to sulphuric acid manufacturers. (Lately noted Incptd. under Va., Rosslyn, with \$90,000 capital.)

Va., Garrisonville.—Pyrites.—Western Pyrites Co. Incptd. with capital stock of \$90,000; U. B. Curtis, Pres.; Frank Porter, Secy.; both of Washington, D. C.; company took over property of Old Dominion Sulphur Co. and will operate mines, producing 100 tons pyrites daily.

MISCELLANEOUS CONSTRUCTION

Ark., Van Buren.—Levee.—Crawford Levee Dist. let contract at 34½ cents per cu. yd. to G. T. Cazort, Lamar, Ark., to construct levee embankment; Engrs., Winters & Dove, 311 Merchants' Bank Bldg., Fort Smith, Ark. (In August bids noted on 47,600 cu. yds. embankment.)

La., New Orleans.—Industrial Canal.—Port Commrs., John R. Loomis, Purchasing Officer, 813 Canal St., let contract at \$620,434 to McClintic-Marshall Co., Pittsburgh, Pa., to construct locks, gates and fixed parts of industrial canal. (Complete canal details heretofore noted.)

La., New Orleans.—Levee.—Atchafalaya Levee Dist. let contract to Lower Coast Construction Co., New Orleans, at \$77,550 for levee construction. (Bids noted in Sept.)

Md., Indian Head.—Coal-storage Basin.—Navy Department, Washington, D. C., will construct coal-storage basin; cost \$125,000.

Tenn., Freeport.—Chas. Clarke & Co., Galveston, Tex., received contract at \$95,000 to repair breakwater.

Tenn., Memphis.—Levee.—Mississippi River Comsn. let contract to J. A. Burt, Gunnison, Miss., at \$53,760 for levee construction, Lower St. Francis Levee Dist. (Bids lately noted.)

Tex., Galveston.—Jetty Repairs.—Chas. Clarke & Co., Galveston, received contract at \$104,700 to make jetty repairs.

Tex., Point Isabel.—Channel Improvements, Brazos de Santiago channel, 2½ mi. in length, will be deepened and improved, at reported estimated cost of \$125,000. Address The Mayor.

Va., Hampton Roads.—Fence and Gates.—Navy Dept., Washington, D. C., contemplates building fence and gates at Naval Training Station; cost \$38,000.

Va., Norfolk.—Harbor Improvements.—Port and Harbor Shipping Facilities Comsn., E. F. Carry, Chmn., Washington, recommended and will install 2 floating repair shops, 11 coating machines, etc., to improve harbor facilities; construction of docks, piers and

warehouses by the city is contemplated. Address The Mayor.

W. Va., Wheeling.—Car-unloading Dock.—Wheeling Iron & Steel Co. let contract Baker-Dunbar-Alten Co., Pittsburgh, Pa., to construct car-unloading dock at plant on Ohio River; crib type; contain 250 piles; install stationary derrick.

MISCELLANEOUS ENTERPRISES

Fla., Fort Myers.—Fisheries, etc.—Marco Co. Incptd., \$200,000 capital; Henry L. Broughton, Pres.; to conduct navigation, fisheries, etc.

Fla., Panama City.—Publishing.—Bay County Publishing Co. Incptd., \$5000 capital; W. H. Lynn, Pres.; G. H. McKenle, V.-P.; Vernon R. Y. Lynn, Secy.; W. H. Lynn, Treas.; publishing; acquired Bay County Beacon of Panama City and Lynn Haven Tribune of Lynn Haven, Fla.

Fla., Oldsmar.—Stockyards.—Reolds Farms Co., Fred. L. Cook, Pres., contemplates establishment of stockyards.

Ga., Dublin.—Grain Elevator.—Farmers' Co-operative Assn., C. H. Kittrell, Pres., will erect co-operative grain elevator.

Ga., Fitzgerald.—Tobacco Redrying.—J. L. Denton of Paris, Ky., representing Kentucky capitalists, contemplates establishing tobacco redrying plant and warehouse.

Mo., St. Louis.—Crematory.—Frank B. Gibson will erect crematory to include columbarium.

S. C., Attendale.—Hardware.—Farmers' Hardware Co., capital \$10,000, Incptd.; R. B. Cunningham, Pres.; R. H. Walker, V.-P.; J. J. Allen, Secy.-Treas.

Tenn., Dyersburg.—Grain Elevator.—Ewell Milling & Grain Co. increased capital from \$10,000 to \$25,000; has added brick building increasing floor space 4200 sq. ft. and elevator capacity to 10,000 bu. storage; also purchased 50-bbl. mill to be installed in January.

Tex., Eastland.—Laundry.—P. Brown, Midland, Tex., will erect laundry; cost \$20,000.

W. Va., Charleston.—Printing.—Charleston Printing Co. organized; Bert G. Shook, Pres.; Harry Morgan, V.-P.; N. J. Wood, Secy.; Wightman D. Roberts, Mgr.; let contract to W. A. and J. L. Abbott, Charleston, to erect 40x65 ft., 2-story brick building, cost \$10,000; purchased machinery; publish West Virginia Mining News; also job printing. (Lately noted chartered, \$25,000 capital.)

MISCELLANEOUS FACTORIES

Ala., Anniston.—Creamery.—Dairymen's Milk Products Co. will install milk-handling plant; purchased equipment, including 3-cylinder unflow refrigerating machine of 15 tons capacity, complete with coils for ice-cream hardening, milk-storage and ice-storage rooms.

Fla., Miami.—Oil Reclaiming, etc.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will construct oil-reclaiming house and septic tank; cost \$20,000.

Fla., Oldsmar.—Creamery.—Reolds Farm Co., Fred. L. Cook, Pres., contemplates establishment of creamery.

Fla., Vero.—Brooms, etc.—Pioneer Broom & Fiber Co., capital \$10,000, Incptd.; A. G. Even, Secy.-Treas.; C. M. Ramick, Supt.; manufacture brooms with palmetto leaf, pine needle or broomcorn covering; daily capacity 50 doz. brooms; purchased machinery.

Fla., Port Pierce.—Cane Syrup.—Havana Cane Products Co., Havana, Cuba, organized, capital \$10,000, to establish plant for manufacture of cane syrup.

Fla., Jacksonville.—Glass.—Crystal Glass Co., capital \$90,000, Incptd. with Chas. H. Pfunter, Pres.; Zina L. Bliss, V.-P.; W. Thos. W. Fowler, Secy.-Treas.

Fla., Miami.—Tanning Extracts.—Paltanic Extract Co. will be incorporated, \$100,000 capital, by Walter J. Lloyd, Frances Hotel, 327 Ninth St., and others to manufacture tanning material from palmetto roots; install machinery. Previously noted. (See Machinery Wanted—Evaporator.)

Ga., Macon.—Bottling.—Tokay Bottling Co., capital \$25,000, Incptd. by R. Brody, G. Troup Howard and E. W. Gould.

La., New Orleans.—Chlorine Plant.—War Dept. is reported to establish \$10,000,000 chlorine plant to manufacture poison gas for shells and bombs. Address Major H. H. Hanson, Chemical Warfare Service, care of Mayor Behrman, New Orleans, for information.

Mo., St. Louis.—Electric Fixtures.—Oliver Electric Mfg. Co. let contract to Amber & Zimmerman, 1228 Pine St., St. Louis, to construct factory building; 2 stories; cost \$45,000.

Mo., Sedalia.—Bakery.—Nafzinger Bakery Co. let contract to H. S. Sommer, Sedalia, to erect building for bakery; 1 and 2 stories; 80x30 ft.; cost \$35,000; Selby H. Kurfiss, Archt., 1202 Searritt Bldg., Kansas City.

Okla., Tulsa.—Oil Vapor Process.—Oil Vapor Process Co. chartered with capital stock of \$100,000; D. and W. Reiser, and I. Chuster, Incorporators.

S. C., Columbia.—Creamery.—Columbia Creamery Co. will double capacity of milk plant; purchased equipment, including pasteurizing and holding equipment, coolers, separators, etc.

Tenn., Nashville.—Hog Cholera Serum.—Eagle Company purchased State serum plant; will remodel and install machinery.

Tex., Dallas.—Ice Cream.—J. H. Smith will erect addition to ice-cream factory; cost \$6000.

Va., Big Stone Gap.—Brooms.—E. R. Taylor is interested in proposed installation of machinery to manufacture brooms. (See Machinery Wanted—Broom Machinery.)

Va., Lodge.—Brooms.—Bailey B. Dawson will establish broom factory. (See Machinery Wanted—Broom Machinery.)

Va., Kinsale.—Brooms.—A. T. Rowe will establish factory to manufacture household brooms; erect ordinary-construction building. (See Machinery Wanted—Broom Machinery.)

Va., Staunton.—Cigars.—Steele Cigar Co., capital \$25,000, Incptd.; Thomas H. Steele, Pres.; G. W. Snyder, Secy., both of Staunton.

W. Va., Riverside.—M. V. Construction Co., Parkersburg, W. Va., has contract for building plant.

W. Va., Wheeling.—Pulverizing.—Wheeling Pulverizing Co. let contract to Geo. Reed, Wheeling, to erect factory; cost \$5000.

MOTOR CARS, GARAGES, TIRES, ETC.

Ala., Mobile.—Automobiles.—Harrington Motor Co., J. A. Swift, Pres., lately noted increasing capital from \$19,500 to \$40,000, continues dealing in automobiles.

Fla., West Palm Beach.—Garage.—Walter R. Moore will build garage.

Fla., West Palm Beach.—Garage.—E. C. Gross will build garage.

Fla., West Palm Beach.—Garage.—W. I. Metcalf will build garage.

Ky., Ashland.—Garage.—J. H. McClary will erect garage; 2 stories; 50x100 ft.; cost \$10,000.

La., New Orleans.—Garage.—C. Melhado will erect garage; brick; cost \$11,000; A. Garrett, Contr., New Orleans.

La., Shreveport.—Garage.—W. K. Henderson let contract to T. Green for brick garage on Travis St.; cost \$40,000. (Lately noted.)

Md., Baltimore.—Garage.—Gullford Motor Co., York Road, near Arlington Ave., let contract McLean Contracting Co., Fidelity Bldg., Baltimore, to erect addition to garage; 1 story; 100x200 ft.

Mo., St. Louis.—Automobiles.—H. Bollwerk & Bros. Vehicle Co., 3105 S. Broadway, lately noted Incptd., capital \$18,000, organized; Henry Bollwerk, Pres.-Mgr.; Jos. Bollwerk, V.-P.; Henry Ben Bollwerk, Secy.; continues manufacturing wagons for oil hauling and tanks for oil trucks; also repair.

N. C., Greensboro.—Tires.—Greensboro Tire & Repair Co., capital \$10,000, Incptd. by S. A. Abley, T. E. Martin and C. B. Willer; all of Charlotte, N. C.

N. C., Greensboro.—Trucks, Tractors, etc.—Southern Truck & Car Corp. organized; J. A. Norford, Pres.-Mgr.; H. P. Christie, V.-P. and Secy.; contemplates future erection of \$200,000 steel structural building; install machinery to build trucks, tractors and bodies. (Lately noted chartered, \$1,000,000 capital.)

Okla., Enid.—Garages.—Oklahoma Garage & Sales Co., capital \$15,000, Incptd. by R. M. Browning, A. L. Rippey and H. A. McDonald.

Okla., Tulsa.—Filling Station.—Purdy Motor Co. will erect \$2000 filling station.

W. Va., Huntington.—Service Station.—L. A. Wolcott & Co., distributor, will enlarge service station, 4th Ave. and 7th St.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Va., Elkins.—Western Maryland R. R. Co., U. S. Railway Administration, W. G. McAdoo, Director-General, Washington, let contract to Price Construction Co., Maryland Trust Bldg., Baltimore, to construct railway shops; reported cost \$500,000; H. R. Pratt, Engr., Continental Bldg., Baltimore.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



W. Va., Charleston.—Baltimore & Ohio R. R. H. A. Lane, Ch. Engr., Baltimore, will erect roundhouse.

W. Va., Grafton.—Baltimore & Ohio R. R. H. A. Lane, Chief Engr., Baltimore, Md., is reported to have let contract to Vang Construction Co., Cumberland, Md., to erect wheel-pressing and machine shops and roundhouse in connection with proposed yard extension.

### ROAD AND STREET WORK

Ala., Montgomery.—Montgomery County contemplates graveling 50 yds. of road in Capitol Heights; Thos. H. Edwards, County Engr.

Ala., Vernon.—Lamar County Commrs. will grade, drain and surface with gravel Sulligent and Hamilton Road, being part of State Trunk Road No. 18, between Sulligent and Marion County line; 6.14 mi. clearing and grubbing; 31,634 cu. yds. earth excavation; 450 lin. ft. vitrified clay pipe; 495 ft. corrugated iron pipe; 26,397 ft. B. M. lumber in bridges, etc.; bids until Nov. 22; W. S. Keller, State Highway Engr., Montgomery, Ala. (See Machinery Wanted—Road Construction.)

Ark., Blytheville.—Paving Dist. No. 1 will pave 2 mi. streets with concrete; 20 to 50 ft. wide; concrete curb and gutter 6-10 in. thick; 1500 ft. 12-15 in. sewers; cost \$87,000; bids about Nov. 1; Engrs., Pride & Fairley, Blytheville.

Ark., Clarksville.—Johnson County Road Improvement Dist. No. 2, let contract A. R. Young Construction Co., Lawrence, Kan., to reconstruct road; macadam; asphalt surface; State appropriated \$60,000 toward construction.

Ark., Fayette.—City let contract to E. A. Gillett, Springdale, Ark., for 14,000 sq. yds. asphaltic or bituminous macadam paving with 15,000 lin. ft. curb and gutter; 2800 yds. excavation.

Ark., Helena.—Geo. A. Sanford, Secy. Gateway Highway Assn., contemplates hard-surfacing highway between Helena and Brinkley.

Ala., Florence.—City Commn. does not contemplate new paving at present; R. E. Meade, City Engr. (Recent report incorrect.)

Ala., Monroeville.—Monroe County votes Nov. 5 on \$195,000 bond issue to construct roads and bridges; M. McFountain, Judge of Probate.

Ark., Harrisburg.—Polk County, Road Improvement Dist. No. 3, will construct 25 mi. of graded earth roads; 185,000 cu. yds. earth excavation; 20 acres clearing and grubbing; 25 acres grubbing, etc.; bids until Oct. 31; Pride & Fairley, Engrs., Osceola.

Ark., Osceola.—Mississippi County, Etowah Road Improvement Dist. No. 2, will construct 20 mi. of graded earth roads; 110,000 cu. yds. earth excavation; 75 acres of clearing and grubbing, etc.; bids opened Oct. 29; Pride & Fairley, Engrs., Osceola.

Ark., Osceola.—Mississippi County, Burdette Road Improvement Dist. No. 3, will construct 26 mi. of graded earth roads; 165,000 cu. yds. earth excavation; 45 acres clearing and grubbing, etc.; bids opened Oct. 30; Pride & Fairley, Engrs., Osceola.

D. C., Washington (Anacostia Station).—Bureau Yards and Docks, Navy Department, Washington, let contract to Faribault Building Corp., 712 Southern Bldg., Washington, at \$48,115 to construct concrete road at Naval Air Station.

Fla., Bunnell.—Flagler County Commrs. appropriated \$5000 for Bunnell-Volusia County highway construction; State Road Dept. will appropriate additional amount.

Fla., Kissimmee.—Osceola County Commrs. issued \$46,500 bonds for roads and bridges in Dist. No. 3.

Fla., St. Petersburg.—Pinellas County Commrs. plan road and bridge construction; \$20,000 bond issue.

Mo., Kansas City.—City will pave 5534 sq. yds. with 4-in. vitrified brick block on 8-in. concrete base; cost \$20,000; Board of Public Works receives bids about Nov. 15.

Mo., Kansas City.—City, Curtis Hill, City Engr., let contract to Martin D. Bagwell, 415 Railway Exchange Bldg., for macadam paving on 32d and 33d Sts.

Mo., St. Joseph.—City awarded contract to Land Construction Co., Ballinger Bldg., for resurfacing Illinois Ave. with tarvia.

N. C., Camp Greene.—War Department, Washington, plans construction of concrete roads at Camp Greene, near Charlotte, to cost \$100,000.

N. C., Winston-Salem.—City will pave sections of Spring, West 4th, North Liberty, Cherry and others streets; cost \$12,000. W. H. Holcomb, City Secy.

Tenn., Chattanooga.—State Highway Commn., J. J. Murray, Secy., appropriated \$10,000 to construct proposed concrete driveway on Rossville Blvd., from army camp, at Fort Oglethorpe, to city limits at East End Ave.; Hamilton County Commrs., Chattanooga, appropriated \$5000 and Government \$60,000.

Tex., Canyon.—Randall County Commrs. contemplate constructing roads; 53,527 cu. yds. excavation; 50,800 lin. ft. grading; C. L. Flesher, County Judge.

Tex., Dallas.—City will grade Bowser and Travis Sts. at cost of \$2700; Hal Moseley, City Engr.

Tex., Camp Bowie.—War Department, Washington, authorized expenditure of several thousand dollars for tarvia-surfaced roads at Camp Bowie, near Fort Worth. Address Construction Quartermaster.

Tex., Dallas.—City contemplates expending \$1300 to improve sidewalk, etc., on Bowser St. Address The Mayor.

Tex., Fort Worth.—Tarrant County Commrs. plan \$400,000 bond election for road construction. Geo. E. Hoxey, County Judge.

Tex., Greenville.—Hunt County, Commerce Dist., defeated \$200,000 bonds for road construction. Address County Commrs. (Latest noted to vote.)

Tex., Houston.—Harris County Commrs. will construct shell surfacing on Cedar Bayou-Lynchburg Road; bids until Nov. 14; Chester H. Bryan, County Judge.

Tex., Houston.—Harris County, H. L. Washburn, County Auditor, will resurface Clinton Road; bids until Nov. 4. (See Machinery Wanted—Road Construction.)

Tex., Roby.—Fisher County, Road Dist. No. 3 voted \$60,000 bonds to construct roads; M. A. Hopson, County Judge.

Tex., San Antonio.—City let contract McGill Construction Co. of San Antonio to repair Houston St. paving; cost \$4000.

Tex., San Antonio.—City let contract to Uvalde Rock Asphalt Co., San Antonio, to improve Commerce St. pavement, cost \$9000; to McGill Construction Co., San Antonio, repairs to Houston St., cost \$4000.

Tex., Stephenville.—Erath County, Road Prec. No. 1, voted \$150,000 bonds to construct roads; Government will appropriate about \$50,000. Address County Commrs.

Tex., Vernon.—City plans issue of \$35,000 bonds for street and water-works improvements. Address The Mayor.

### SEWER CONSTRUCTION

Ark., Blytheville.—Paving Dist. No. 1 will install 1500 ft. 12-15-in. sewers in connection with paving; bids about Nov. 1; Engrs., Pride & Fairley, Blytheville. (See Road and Street Work.)

Fla., Key West.—Bureau Yards and Docks, Navy Department, let contract to Smallwood Company, 901 James Bldg., Chattanooga, Tenn., at \$62,000 for addition to sewer and water system.

Mo., Macon.—City has postponed until spring the construction of sewage-disposal works for which bids were lately noted for Sept. 24; Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, Mo.

Okla., Geary.—City let contract to McIntosh-Walton Engineering Co., Oklahoma City, Okla., for sewerage system; cost \$30,000.

Tex., Luling.—School Board and City Commrs. will install sewerage system in school building.

W. Va., Watson.—State Board of Control, Clarksburg, W. Va., contemplates building sewage-disposal plant.

### TELEPHONE SYSTEMS

S. C., Charleston.—Western Union Telegraph Co., W. O. Gaffney, Mgr. of Charleston branch, will install wires, telegraph instruments, etc., in office building on E. Bay St., being remodeled at cost of \$50,000.

### TEXTILE MILLS

N. C., Albemarle.—Cotton Products.—Wiscasset Mills Co. will not build additional mill. (Recent report was error.)

N. C., Lowell.—Cotton Yarn, etc.—Robinson Spinning Co., capital \$200,000, inctd. by J. S. Rankin, S. M. Robinson, W. E. G. Robinson and others.

### WATER-WORKS

Ark., Fayette.—City reported to install electric pump, cost \$6000, at pumping station. Address The Mayor.

Ark., Fayetteville.—City plans installation of \$2000 electrically-driven pump at White River pumping station. Address The Mayor.

Fla., Key West.—Bureau Yards and Docks, Navy Department, let contract at \$62,000 for additions to water and sewer system to Smallwood Company, 901 James Bldg., Chattanooga, Tenn.

Ga., Rehecan.—City contemplates constructing water-works system; include tank and mains. Address The Mayor.

Mo., Galea.—City plans to improve water-works, including construction of pumping station; estimated cost \$100,000; Burns & McDonnell, Engrs., Interstate Bldg., Kansas City.

N. C., Wilmington.—City, Thos. D. Meares, City Clerk, asks bids until Nov. 18 on lately-noted improvements and enlargements water-works pumping station at Hilton Park; includes 100-ft. light-weight cast-iron flanged 14-in. diam. suction pipe; 100-ft. discharge pipe; 5,000,000-gal. centrifugal pump; steam-driven turbine engine or double vertical double-acting engine; pump-house and concrete foundation; reinforced concrete reservoir; 7000 cu. yds. earth excavation and disposal; 4 filter units, each 500,000 gals. daily capacity; two 20x30 ft. storerooms, built as second story on present pumping station; J. N. Johnston, City Engr. (See Machinery Wanted—Water-works.)

Okla., Ardmore.—City let contract to Ardmore Construction Co., Ardmore, Okla., to build pipe line to Hickory Creek; cost \$24,000. (Bids noted in Sept.)

Okla., Tulsa.—City will lay water mains, place hydrants, etc.; bids until Oct. 31; Chas. F. Burke, City Auditor. (See Machinery Wanted—Water-works Supplies.)

Okla., Tulsa.—City engaged H. A. Pressey, Oklahoma City, to make survey of probable sources of water supply, including Grand River. (Installation of low duty centrifugal pump of 8000 gals. daily capacity, additional mains, etc., lately noted.)

Va., Graham.—City plans water-works improvements. Address The Mayor.

Va., Portsmouth.—Emergency Construction Co. let contract to Glen Contracting Co., Chicago and New York (with general offices for this work, Natl. Bank of Suffolk Bldg., and construction force offices in Law Bldg., Suffolk, Va.), to improve Portsmouth, Berkley & Suffolk water supply, to cost nearly \$2,000,000; includes raising dam, at Lake Cohoon, 13 ft., increasing power-house capacity, filtration basins, etc.; laying 30-in. pipe from Suffolk to Portsmouth, new supply lines under river at Norfolk, etc.; M. R. Keefe, Gen. Supt.; construction to be supervised by Capt. Moore, U. S. A.; R. H. Gordon and H. Q. Kennedy of U. S. A.; Glen Contracting Co. will at once erect temporary offices, shop and barrack buildings, etc. (Latest noted as part of Government plans to expend \$10,000,000 for acquiring, improving and operating public utilities system in Norfolk-Portsmouth section.)

Tex., Vernon.—City plans issue of \$35,000

bonds for water and street improvements. Address The Mayor.

### WOODWORKING PLANTS

Fla., Ross-Crates.—Exchange Supply Co. (auxiliary of Florida Citrus Exchange), W. E. Miller, Mgr., Tampa, Fla., purchased timber tract, will install machinery and manufacture crate material; purchased equipment.

Ga., Macon.—Cooperage.—Macon Cooperage Co., W. A. Roush, Pres., will rebuild plant reported burned; erect 10x100-ft. millwork structure building by day labor; lease equipment for tight cooperage, staves and heads, 600 bbls. daily; machinery notes purchased.

### FIRE DAMAGE

Ala., Cunningham.—G. S. Roan's barn.

Ark., Fort Smith.—J. W. and Robt. Meek's candy factory, loss \$10,000; building occupied by Fort Smith Commission Co. and Finest Coffee Co., loss to companies \$25,000 to \$350,000, and on building owned by Mrs. E. T. Echols, \$60,000; building occupied by W. J. Echols Wholesale Grocer Co., and owned by Mrs. E. T. Echols, loss \$5,000.

Ark., Walnut Ridge.—Jim Davis' residence; owned by Lee Smith, Hornersville, Mo.

Ga., Macon.—Macon Cooperage Co.'s plant; estimated loss \$25,000.

Ky., Cynthiana.—Clarence Le Bus' insured warehouse; loss \$12,000; Smith & Tuten's livery stable.

Ky., Hopkinsville.—Clarence C. Carter's stable in South Christian; loss \$500.

Mo., Princess Anne.—William P. Fitzgerald's garage; loss \$3000.

Miss., Biloxi.—Henry Krohn's sawmill; loss \$2000.

N. C., Cary.—J. A. Smith's residence and High School dormitory; both buildings owned by Mr. Smith; loss \$7000 to \$8000.

Okla., Muskogee.—Midland Valley Milling Co.'s grain elevator at L and Dorchester Sts.; loss on building and machinery \$10,000.

Okla., Picher.—B. F. Wood's 2 buildings; loss \$4000.

Tenn., Nashville.—Central High School at E. I. du Pont de Nemours & Co.'s plant at Jacksonville under construction by Mason & Hanger Co., 52 Vanderbilt Ave., New York, under supervision of the Government.

Tex., Sweetwater.—Grogan Hotel; loss \$5000.

Tex., Jarrell.—Jarrell Mercantile Co.'s store; D. C. Erwin's store; Condra Bros' store; First State Bank building; estimated loss \$100,000.

Tex., Luling.—H. L. King's millhouse, including wood saw, splitter and gasoline engine; loss \$1000.

Va., Fredericksburg.—J. A. Dillard's residence in Madison County.

Va., Port Norfolk (P. O. Portsmouth)—Office and rooming-house owned by South Hill Manufacturing Co.

W. Va., Charleston.—Woodrum Home Outfitting Co.'s stable and garage; loss \$10,000.

### DAMAGED BY STORM

Tex., Waller.—Methodist Church (address The Pastor); Farmers' Union warehouse.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ga., Camp Gordon.—Salvation Army will erect hut near Remount Depot; 40 rooms; cafeteria, rest and reading-rooms; cost about \$40,000.

Ky., Hazard.—Reliance Coal Co. will erect Y. M. C. A. building. (See Dwellings.)

Ky., Krypton.—Muncey Coal Mining Co., W. S. H. Armistead, Mgr., will erect Y. M. C. A. building, etc. (See Dwellings.)

Tenn., Chattanooga.—Jewish Welfare Board, Paul Heyman, Representative, will erect building near Civic Center; plans include classrooms, assembly halls, recreation room, shower baths, auditorium, etc.; accommodate 200; cost \$15,000; furnishings and equipment, \$5000.

Va., Norfolk.—North Shore Improvement Co., 25 N. Dearborn St., Chicago, will erect 2 family apartments and individual residences in West Ghent; brick and frame; cost \$6000 to \$10,000; break ground on or before Nov. 1 for 25 buildings, mainly of 2-flat type; contemplates soon to erect apartments of kith-

enette and unit type; plans and construction by owner. (See Dwellings.)

#### ASSOCIATION AND FRATERNAL

Tex., Waco.—Knights of Columbus will erect building at Camp MacArthur in Section C; 35x80 ft.; also erect building in Section M.; H. B. Mistrot, Chrmn. Committee.

Va., Portsmouth.—National War Work Council purchased property at Court and Queen Sts. and will remodel and erect addition for army and navy club.

#### BANK AND OFFICE

Tex., Jarrell.—First State Bank will probably erect bank building to replace structure noted damaged by fire.

Va., Port Norfolk (P. O. Portsmouth)—South Hill Manufacturing Co. will probably rebuild office and rooming-house noted damaged by fire.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## CHURCHES

Ky. Hazard.—Reliance Coal Co. will erect church building, etc. (See Dwellings.)

Ky. Krypton.—Muncie Coal Mining Co., W. S. H. Armsted, Mgr., will erect church, etc. (See Dwellings.)

La. New Orleans.—Providence Baptist Church will erect \$2000 building. Address The Pastor.

Tex. Waller.—Methodist Church will probably rebuild structure noted damaged by fire. Address The Pastor.

## CITY AND COUNTY

Okl. Picher.—City Hall.—City will erect city hall; concrete; 6 rooms and assembly hall; constructed to permit erection of additional rooms later. Address The Mayor.

## DWELLINGS

Ark. Walnut Ridge.—Lee Smith, Hornersville, Mo., will probably rebuild residence noted damaged by fire.

Fla. West Palm Beach.—George Peterson will erect cottage.

Ky. Carr's Fork.—Carr's Fork Coal Co., Hindman, Ky., will erect 35 miners' houses; contract let within 3 weeks.

Ky. Flat Lick.—Flat Lick Coal Co. will erect 3 additional miners' houses and school building; contract let within 10 days.

Ky. Hazard.—Reliance Coal Co. will erect 9 additional miners' houses, Y. M. C. A. and church.

Ky. Krypton.—Muncie Coal Mining Co., W. S. H. Armsted, Mgr., will erect 50 miners' houses, Y. M. C. A., store, church and school; contract awarded at once.

La. New Orleans.—Carondelet Realty Co. will erect frame residence; cost \$2000.

La. Shreveport.—E. A. Shaw will erect residence; frame; cost \$2750.

Md. Baltimore.—Maryland Realty Corp., 25 Calvert Bldg., will erect 16 dwellings on Belair Ave. near Erdman Ave.; 14x48 ft.; 2 stories; brick; cost \$2500 each; plans and construction by owner.

Md. Phoenix.—John R. Wier will probably erect dwelling, dairy and icehouse to replace structures lately noted damaged by fire.

Mo. Kansas City.—Joseph F. Fix, 6009 Houston St., will erect residence; frame; 1 story and basement; 14x20 ft.; composition roof; cost \$6000.

Mo. St. Louis.—J. Carr Gamble will remodel 9-room brick residence; plans call for hardwood floors, decorations, fixtures, exterior and interior painting.

Mo. St. Louis.—Allen D. McKinley will remodel residence; 9 rooms; brick; plans include hardwood floors, decorations, fixtures, exterior and interior painting.

N. C. Cary.—J. A. Smith will probably rebuild residence and High School dormitory noted damaged by fire at loss of \$7000 to \$8000.

Okl. Tulsa.—H. E. Hanna will erect \$3000 residence; frame.

Okl. Tulsa.—F. Peterson will erect frame and concrete residence and garage; cost \$2500.

Okl. Tulsa.—O. Kulatzky will erect residence; 2 stories; tile and stucco; cost \$5000.

Okl. Tulsa.—Adams & Walker will erect 2 frame dwellings; cost \$5000.

Okl. Tulsa.—L. R. Davis will repair residence; cost \$2000.

Okl. Tulsa.—J. H. Bankston will erect 2-story frame residence; cost \$8000.

Okl. Tulsa.—H. J. Brickner will erect residence; frame; cost \$2000.

Okl. Tulsa.—J. Koughz will erect residence; frame; cost \$2500.

Okl. Tulsa.—C. H. Rawson will erect frame residence; cost \$3000.

Okl. Tulsa.—H. C. Stahl will erect residence; frame; cost \$2500.

S. C. Camden.—Leroy Springs Davidson will probably erect dwelling to replace structure lately noted damaged by fire.

Tenn. Lewisburg.—S. T. Morton will probably rebuild residence lately noted damaged by fire at loss of \$6000.

Tenn. Lyles.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Edward E. Dougherty, Stahlman Bldg., Nashville, for dwellings. (See Government and State.)

Tex. Dallas.—F. Swor will erect residence; frame; 4 rooms; cost \$2300.

Tex. Georgetown.—J. S. Harris will prob-

ably rebuild residence lately noted damaged by fire at loss of \$2500.

Tex. Houston.—D. Miller will erect 5-room residence; cost \$2450.

Tex. Houston.—Houston Land Corp. will erect five 6-room, four 5-room, one 9-room and one 8-room dwellings; frame and stucco; total cost \$33,439.

Tex. Houston.—C. Belk will erect 6-room dwelling; cost \$2850.

Tex. Houston.—E. C. Brock will erect dwelling; 5 rooms; cost \$2200.

Tex. Houston.—R. E. Morse, Jr., will erect dwelling; 2 stories; 8 rooms; cost \$3000.

Tex. Houston.—W. C. Brannum will erect 2 dwellings; 5 rooms; cost \$2000 each.

Tex. Houston.—W. E. Tynes will erect \$3000 dwelling; 5 rooms.

Tex. Houston.—G. F. Welch will erect 4 dwellings; 5 rooms; cost \$8000.

Tex. Houston.—D. C. Wright will erect 5-room dwelling; cost \$2000.

Tex. Houston.—J. C. Funk will erect dwelling; 5 rooms; cost \$2000.

Tex. Houston.—J. H. Edmonds will erect 4-room dwelling; also remodel 2-story dwelling; cost \$3750.

Tex. Houston.—Mrs. E. K. Newton will erect \$2500 residence; 2 stories.

Tex. San Antonio.—A. L. Thorman will erect 2 dwellings; frame; cost \$2200 each.

Tex. San Antonio.—D. R. Barnes will erect residence; frame; cost \$2500.

Tex. San Antonio.—Mrs. J. V. Friederick will erect frame residence; cost \$2500.

Tex. San Antonio.—S. Friedman will erect 9 dwellings; frame; total cost \$11,700.

Tex. San Antonio.—T. E. Abbott will erect dwelling; frame; cost \$3000.

Tex. San Antonio.—W. T. Green will erect frame dwelling; cost \$3000.

Va. Milton.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Clinton Mackenzie, 15 Broad St., New York, for 50 dwellings; Walter Fluch, Engr., Milton. (See Government and State.)

Va. Norfolk.—North Shore Improvement Co., 25 N. Dearborn St., Chicago, purchased about 300 lots in West Ghent and plans to erect 2-family apartments and individual residences; brick and frame construction; cost \$6000 to \$10,000; break ground on or before Nov. 1 for 25 buildings, mainly of 2-flat type; contemplates soon to erect apartments of kitchenette and unit type; plans and construction by owner.

W. Va. Moundsville.—D. T. Burton will erect residence; 6 rooms.

## GOVERNMENT AND STATE

Fla. Miami.—Storehouse.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Dept., Washington, will erect storehouse; cost \$12,000.

Fla. Pensacola.—Storage, etc.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, Washington, will receive bids to erect heat and detonator storage building; cost \$4500.

Fla. Pensacola.—Housing.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, plans to expend \$180,000 for housing personnel; specification No. 2534.

Fla. Pensacola.—Mess Hall.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect mess hall at Pensacola and latrine and 3 barracks at Santa Rosa Island. (See Fla. Santa Rosa Island.)

Fla. Santa Rosa Island.—Barracks, Latrine, etc.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect latrine and 3 barracks buildings at Santa Rosa Island and mess hall at Pensacola; Jas. Alexander Construction Co., 288 N. Front St., Memphis, is lowest bidder for work complete at \$60,949. (Lately noted.)

Fla. Cutler.—Aero Gunnery School.—War Department, Washington, will erect 2 additional units at army aero gunnery school; \$650,000 appropriation.

Ga. Columbus.—Musketry School.—Construction Division, War Department, Washington, plans to erect various buildings at musketry school; cost about \$100,000.

Ky. Louisville.—Motor School.—Construction Division, War Department, Washington, will build school to consist of quarters, barracks, administration office, classroom and motor school; cost about \$182,233.

La. New Orleans.—Hospital.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, receives bids until

Nov. 12 for labor to construct complete with materials furnished by Government 3 buildings for United States marine hospital; drawings and specifications obtainable from custodian at New Orleans or office of Supervising Archt., Washington. (Previously noted.)

Md. Camp Holabird.—Warehouse.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and D Sts. S. W., Washington, will expend \$28,650 at Camp Holabird to include extension of Warehouse No. 2; 561 ft. long; connected by platform, about 4080 sq. ft., with Colgate Creek dock.

Md. Indian Head.—Public Works Office.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect extension to public works office at naval proving grounds; De Kimpse Construction Co., Union Hill, N. J., only bidder at \$10,400.

Tenn. Lyles.—Dwellings.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Edward E. Dougherty, Stahlman Bldg., Nashville, for dwellings.

Tex. Fort Worth.—Motor School.—War Department, Washington, will erect mess halls, barracks, lecture-rooms, quarters for officers, laboratories, etc., at motor transport school, Camp Bowie.

Va. Hampton Roads.—Grandstand and Bleachers.—Bureau of Yards and Docks, Navy Dept., C. W. Parks, Chief, Washington, plans to erect grandstand and bleachers; cost \$64,500.

Va. Milton.—Dwellings.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Clinton Mackenzie, 15 Broad St., New York, for 50 dwellings; 1½ and 2 stories; Walter Fluch, Engr., Milton.

Va. Yorktown.—Storage and Magazine Buildings.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, will erect 5 storage buildings to cost \$750,000 and 10 magazine buildings to cost \$90,000.

## HOSPITALS, SANITARIUMS, ETC.

La. New Orleans.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, receives bids until Nov. 12 for labor required to construct complete with materials furnished by Government 3 buildings for United States marine hospital. (See Government and State.)

Md. Salisbury.—Peninsula Hospital is having plans prepared by Owens & Sisco, Continental Bldg., Baltimore, for 3-story addition; 52x31 ft.; cost about \$10,000; plans in preliminary stage; details not determined.

## HOTELS

Tex. San Angelo.—C. C. McBurnett will construct electric-light plant for Angelus Hotel.

Tex. Sweetwater.—Owner of Grogan Hotel will rebuild structure noted damaged by fire at loss of \$5000.

## MISCELLANEOUS

Ala. Cunningham.—Barn.—G. S. Roan will probably rebuild barn noted damaged by fire.

Ark. Little Rock.—Barn.—Judge T. B. Ivy will probably erect barn to replace structure lately noted damaged by fire at loss of \$2500.

D. C. Washington.—Lunchroom.—Miss F. B. Alexander, 1845 N. Capitol St., will erect frame building for lunchroom, 216 Nineteenth St.; cost \$14,000.

Ga. Cotton.—Barns.—E. G. Holmes will probably erect 2 barns to replace structures lately noted damaged by fire at loss of \$10,000.

N. C. Winston-Salem.—Barn.—Charles Patterson will probably rebuild barn lately noted damaged by fire at loss of \$3000.

W. Va. Charleston.—Stable.—Woodrum Home Outfitting Co. will probably rebuild stable and garage noted damaged by fire at loss of \$10,000.

## SCHOOLS

Fla. Tarpon Springs.—Pinellas County Board of Public Instruction, Dixie M. Hollins, Secy., Clearwater, Fla., receives bids until Nov. 12 to erect brick or frame school buildings; plans and specifications at office of Wm. Schull, Archt., St. Petersburg.

Ala. Carney.—Commissioners Court of Baldwin County, Bay Minette, Ala., called election Nov. 2 on tax to erect Carney school in Dist. No. 30 and White House Fork school in Dist. No. 3.

Fla. Cutler.—War Department, Washington, will erect 2 additional units at army

aero gunnery school. (See Government and State.)

Ga. Columbus.—Construction Division, War Dept., Washington, plans to erect various buildings at musketry school; cost about \$100,000. (See Government and State.)

Ga. Fitzgerald.—J. L. Denton, Paris, Ky., is making preliminary arrangements with Chamber of Commerce to establish tobacco warehouse. (Chamber of Commerce lately noted interested in erection of structure.)

Ga. Chamblee.—School Board has plans by M. F. Morris, 525 Atlanta National Bank Bldg., Atlanta, for school building; 8 rooms, auditorium, library, etc.; brick, wood and cement; tar and gravel roof; wood floors; electric lights; ultimate cost \$29,000 to \$35,000; only 2 rooms to be erected at present; day labor; temporary roof (composition roll roofing); also temporary heating. (Previously noted.)

Ky. Flat Lick.—Flat Lick Coal Co. will erect school building. (See Dwellings.)

Ky. Krypton.—Muncie Coal Mining Co., W. S. H. Armsted, Mgr., will erect school, etc. (See Dwellings.)

Ky. Louisville.—Construction Division, War Department, Washington, will build school to consist of quarters, barracks, administration office, classroom and motor school; cost about \$182,233. (See Government and State.)

Okl. Tulsa.—Board of Education will erect \$750 addition to Washington School and \$6900 addition to Riverside School; also construct boiler-rooms in following schools: Horace Mann School, cost \$5000; Lowell School, \$1600; Emerson School, \$4600; Whitler School, \$4000. (Previously noted in part.)

Okl. Wewoka.—Board of County Commrs., J. S. Cravens, Chmn., receives bids until Nov. 2 to erect \$10,000 school building; plans and specifications at office county superintendent, Wewoka.

Okl. Oklahoma City.—Board of Education, H. M. Fahey, Secy., opened bids to erect additions to various schools; L. F. Lee, lowest bidder at \$35,968 for Culbertson School; Campbell & Price at \$59,764 for Woodrow Wilson School; R. M. Christmas at \$34,869 for erection of Willard School; all of Oklahoma City; Campbell & Price low bidders at \$169,597 for all buildings; will eliminate addition to Eugene Field School; bids did not include painting, plumbing, heating or drainage. (Lately noted.)

Tenn. Nashville.—E. I. du Pont de Nemours & Co. will probably rebuild Central High School at Jacksonville noted damaged by fire at loss of \$75,000 to \$100,000; building under construction by Mason & Hanger Co., 52 Vanderbilt Ave., New York, under supervision of the Government.

Tex. Fort Worth.—War Department, Washington, will erect mess halls, barracks, etc., at motor transport school, Camp Bowie. (See Government and State.)

## STORES

Ark. Little Rock.—M. O. Wendler has permit to erect 2 brick buildings, 610-12 Main St.; cost \$12,000.

Fla. West Palm Beach.—A. B. Cox will erect store building.

Ky. Krypton.—Muncie Coal Mining Co., W. S. H. Armsted, Mgr., will erect store building, etc. (See Dwellings.)

La. New Orleans.—Mrs. S. Poche will erect business building; cost \$3000.

Md. Baltimore.—Acker, Merrill & Condit Co., Charles and Clay Sts., has plans by Owens & Sisco, Continental Bldg., Baltimore, for alterations to store at 106-10 N. Howard St. (Previously noted.)

Mo. St. Louis.—Campbell Iron Co. will erect addition to business building; cost \$2196.

Tex. Jarrell.—Condra Brothers will probably erect store building to replace structure noted damaged by fire.

Tex. Jarrell.—Jarrell Mercantile Co. will probably rebuild store noted damaged by fire.

Tex. Jarrell.—D. C. Erwin will probably rebuild store noted damaged by fire.

Tex. San Antonio.—M. Witte Estate will remodel front of business building on Soledad St.; cost \$2500.

## THEATERS

Ga. Augusta.—Princess Company Incptd. with \$5000 capital by E. J. Sparks, G. Lloyd Preacher and H. D. Hearn.

Ga. Augusta.—War Department Commission on Training Camp Activities, Washington, is having plans prepared by J. A. Minix for additional Liberty Theater at Camp Hancock; seating capacity 1600. (Lately noted.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



## WAREHOUSES

Ky., Cynthiana.—Clarence Le Bus will probably rebuild iron-clad warehouse noted damaged by fire at loss of \$12,000.

Mo., Camp Holabird.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and D Sts., S. W., Washington, will expend \$228,680 at Camp Holabird to include extension of Warehouse No. 3; 561 ft. long. (See Government and State.)

Mo., Frederick.—L. E. Mullinix will prob-

ably erect warehouse to replace building lately noted damaged by fire.

Mo., St. Louis.—Schultz Belting Co. will erect addition to warehouse; cost \$240.

Mo., St. Louis.—Best Clymer Mfg. Co. has permit to construct foundation for warehouse; cost \$10,000.

Tex., Waller.—Farmers' Union will probably rebuild warehouse noted damaged by fire.

Tex., Fort Worth.—W. J. Boaz will erect warehouse; cost \$200.

## BUILDING CONTRACTS AWARDED

## APARTMENT-HOUSES

Fla., Jacksonville.—Vulcan Iron Works let contract to Henry T. Jones, 1702 Swift St., Jacksonville, to remodel building at 1440 E. Duval St. for apartment-house; 6 suites; frame; 40x100 ft.; tin roof; wood floors; gas heat; electric lights; cost \$5000; R. A. Benjamin, Archt., 700 Bishop Bldg., Jacksonville. (Contractor lately noted to remodel building for stores.)

Mo., St. Louis.—L. Penningroth let contract to A. J. Gamache, 1000 Chestnut St., St. Louis, to alter tenement; cost \$2300. (Lately noted.)

## ASSOCIATION AND FRATERNAL

Ala., Montgomery.—National War Work Council, Young Women's Christian Assn., let contract to Southern Ferro Concrete Co., Atlanta, to erect 3 hostess-houses, barracks and garage at Camp Sheridan; 2 stories; 80x60 ft.; cost \$40,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

Ark., Little Rock.—National War Work Council, Young Women's Christian Assn., let contract to F. Walter Jones, Memphis, Tenn., to erect hostess-house and barracks; 2 stories; 80x175 ft.; cost \$80,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

Miss., Hattiesburg.—National War Work Council, Young Women's Christian Assn., let contract to F. Walter Jones, Memphis, to erect hostess-house and barracks at Camp Shelby; 2 stories; 60x80 ft.; cost \$25,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

Okla., Lawton.—National War Work Council, Young Women's Christian Assn., let contract to F. Walter Jones, Memphis, to erect hostess-house and barracks; cost \$30,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

N. C., Charlotte.—National War Work Council Young Women's Christian Assn., let contract to Harry H. Vought, Jr., Grand Central Terminal Bldg., New York, to erect hostess-house; 2½ stories; 98x85 ft.; Katherine C. Budd, Archt., 527 5th Ave., New York. (Lately noted.)

S. C., Spartanburg.—National War Work Council, Young Women's Christian Assn., let contract to Harry H. Vought, Jr., Grand Central Terminal Bldg., New York, to erect hostess-house; 2½ stories; 150x85 ft.; Katherine C. Budd, Archt., 527 5th Ave., New York.

## BANK AND OFFICE

Fla., West Palm Beach.—L. E. Heisler let contract to Harry Grubbs, West Palm Beach, to erect office building at 632 Clematis Ave.; brick; composition roof; wood floors; cost \$1000; C. W. Grubbs, Archt., West Palm Beach. (Lately noted under Stores.)

Va., Portsmouth.—Ulen Contracting Co., Contr. to enlarge Portsmouth, Berkley & Suffolk Water Co.'s plant will erect several temporary structures to include 1-story office building; barracks building, 1 story, 76x30 ft.; blacksmith shop.

W. Va., Moundsville.—City & County Bank let contract to H. Batson, Moundsville, to repair bank building; Charles W. Bates, Archt., National Bank Bldg., Wheeling.

## CHURCHES

N. C., Roanoke Rapids.—Methodist Episcopal Church South let contract to J. W. Smoot, Roanoke Rapids, to erect church building; 71x105 ft.; brick and stone; slate roof; wood floors; electric lights; cost \$25,000; steam heat, about \$3000; C. C. Benton & Bro., Archts., Wilson, N. C. Address contractor. (Lately noted.)

## COURTHOUSES

Mo., Jefferson City.—Cole County let contract at \$58,400 to Louis Schell to rebuild

courthouse lately noted damaged by fire; F. B. Miller, Archt., Jefferson City. (Lately noted.)

## DWELLINGS

D. C., Washington.—M. A. and Lulu M. Fiedler let contract to J. E. Thompson, 5802 Georgia Ave., Washington, to erect 2-story brick dwelling and garage, 1339 Gallatin St., N. W.; cost \$4000; Karl Hartig, Archt., 1316 Euclid St., N. W., Washington.

D. C., Washington.—Clifford E. Walker has plans by and let contract to L. D. Hayes, Jr., 4604 Deane Ave., N. E., Washington, to erect 2-story frame dwelling, 4291 Washington Court; cost \$2500.

Fla., Jacksonville.—Denham & Edwards let contract to Henry Taylor & Son, 2825 Oak St., Jacksonville, to erect residence; cost \$3000; Mark & Sheftall, Archts., 210 Clark Bldg., Jacksonville.

Fla., Miami.—Alton Beach Realty Co. is reported to have let contract to Rustian Realty Co., Fletcher Trust Bldg., Indianapolis, Ind., to erect 6 residences and garages; 2 stories; Merritt Harrison, Archt., Board of Trade Bldg., Indianapolis.

Ky., Fort Thomas.—Ben Federle, 610 Oak St., Newport, Ky., let contract to W. H. Ware, 38 Riverside Parkway, Fort Thomas, to erect residence; 10x26 ft.; 1 story and basement; cost \$8000; C. C. and E. A. Weber, Archts., Miller Bldg., Cincinnati; let contract for heating and plumbing to A. W. Parvin, and roofing to O. P. Stout, both of Fort Thomas; construction begun.

La., Shreveport.—Miss M. White let contract to M. T. & S. E. Carter to erect frame residence; cost \$500.

La., Shreveport.—G. W. Adams let contract to Spencer & Hinkley to repair residence; cost \$2500.

La., Shreveport.—J. M. Carrens let contract to H. G. Hodges, Shreveport, to repair residence; cost \$300.

Tex., Beaumont.—Dr. F. F. Sutton will erect residence; cost \$2800; J. Wellman, Contr., Beaumont.

Tex., Beaumont.—P. A. Dowlen let contract to J. Wellman, Beaumont, to erect residence; cost \$2500.

Tex., Beaumont.—J. E. Broussard let contract to Interstate Realty Co., Beaumont, to erect 5-room residence; cost \$2800.

Tex., Fort Worth.—Mrs. W. G. Newby let contract to J. T. Hardy, Fort Worth, to erect residence; frame; cost \$2400. (Lately noted.)

Tex., Fort Worth.—J. S. Bond let contract to I. L. Miller, Fort Worth, to erect brick-veneer residence; cost \$4300. (Lately noted.)

Tex., Fort Worth.—Mrs. H. O. Ledgerwood let contract to I. L. Miller, Fort Worth, to erect residence; brick veneer; cost \$4500. (Lately noted.)

Tex., Fort Worth.—G. W. Apperson let contract to J. E. Locklear to erect frame residence; cost \$2500. (Lately noted.)

Tex., Fort Worth.—W. J. Boaz let contract to Butcher & Seacey, Fort Worth, to repair residence; cost \$3000.

Tex., Fort Worth.—F. Bledsoe let contract to P. N. Voss, Fort Worth, to erect dwelling; frame; cost \$2265. (Lately noted.)

Tex., Fort Worth.—H. D. Stewart let contract to P. N. Voss, Fort Worth, to erect dwelling; cost \$2000.

Tex., Fort Worth.—W. A. Wright will erect frame dwelling; cost \$2000; P. N. Voss, Contr., Fort Worth.

## GOVERNMENT AND STATE

Ala., Anniston.—Barracks.—War Department, Washington, let contract to T. C. Thompson & Bros., Charlotte, N. C., to erect additional wooden barracks at Camp McClellan; cost \$4,500,000. (Lately noted.)

D. C., Washington.—Emergency Hospital.—Bureau of Yards and Docks, C. W. Parks,

Chief, Navy Department, let contract to Turner Construction Co., 23d and B Sts., N. W., Washington, to erect emergency hospital; cost \$300,000.

Fla., Key West.—Naval Air Station.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, Washington, let contract to South Florida Contracting & Engineering Co., Key West, to erect 4 additional buildings at naval air station; cost \$50,000. (Lately noted.)

Fla., Pensacola.—Platform.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, Washington, let contract to F. G. Proudfoot, Pensacola, to erect platform. (Lately noted.)

Ga., Fort McPherson.—Hospital.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and B Sts., S. W., Washington, let contract to Gude-Krebs & Co., Atlanta, to erect hospital building; cost about \$500,000; F. B. Wheaton, Adv. Archt., and F. M. Gunby, Adv. Engr., both of 7th and B Sts., S. W., Washington. (Lately noted.)

Va., Newport News.—Barracks, etc.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, let contract to Harwood & Moss, Newport News, to erect barracks and other buildings at Newport News and Norfolk; cost about \$120,000.

Va., Norfolk.—Barracks, etc.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, let contract to Harwood & Moss, Newport News, to erect barracks and other buildings. (See Va., Newport News.)

Va., Bellevue.—Storehouses and Heating Plant.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect 7 ordnance storehouses and central heating plant; 4 buildings 60x222 ft.; 3 buildings 60x202 ft.; 1 building 48x50 ft.; hollow tile, steel and reinforced concrete; slag roof; concrete floors; George F. Pawling & Co., 142 S. Penn Square, Philadelphia, are lowest bidders for work complete at \$433,210. Address George F. Pawling & Co. (Lately noted.)

## HOSPITALS, SANITARIUMS, ETC.

D. C., Washington.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, let contract Turner Construction Co., 231 and B Sts., N. W., Washington, to erect emergency hospital. (See Government and State.)

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

## "WANTS"

Baking Machines, etc.—J. M. Fernandez, Box 1728, Havana, Cuba.—Prices on bakers' machinery, coffee roasters, etc.; view to agencies.

Boilers.—Stewart & Company, Tatum, S. C.—Description and prices on two 40 H. P. second-hand steam boilers.

Box Material.—W. W. Trump, 406 Briggs St., Harrisburg, Pa.—Data and prices on material for boxmaking; also list of box manufacturers in Maryland, Virginia, West Virginia, North Carolina, Eastern Tennessee and Kentucky.

Brass Rods, etc.—See Iron.

Bridge Construction.—Yazoo County Commrs., S. S. Griffin, Clerk, Yazoo, Miss.—To let contract Nov. 4 to build bridge over Richards Creek, near Sataria; plans and specifications on file.

Bridge Construction.—Rogers County Commrs., I. W. Slack, Chmn., Claremore, Okla.—Bids until Nov. 16 to construct steel bridge over Verdigris River; plans and specifications on file with W. J. Eldridge, County Clerk.

Broom Machinery.—A. T. Rowe, Kinsale, Va.—Prices on machinery to manufacture brooms.

Broom Machinery.—E. R. Taylor, Big Stone Gap, Va.—Prices on complete equipment for broom manufacturing.

Broom Machinery.—Bailey B. Dawson, Lodge, Va.—Prices on equipment of broom machinery.

Building Materials.—Kanawha Collieries Co., 207 Charleston National Bank Bldg., Charleston, W. Va.—Prices on building materials; for use Swiss, W. Va.

Canning (Meat) Equipment.—Panama

Can., Fort McPherson.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and B Sts., S. W., Washington, let contract to Gude-Krebs & Co., Atlanta, to erect hospital building; cost about \$500,000; F. B. Wheaton, Adv. Archt., and F. M. Gunby, Adv. Engr., both of 7th and B Sts., S. W., Washington. (See Government and State.)

W. Va., Huntington.—Chesapeake & Ohio Ry., F. I. Cabell, Chief Engr., Richmond, Va., let contract to S. W. Harter, Huntington, to erect hospital; three stories 30x100 ft.; cost \$50,000; C. M. Robinson, Archt., Times Dispatch Bldg., Richmond. (Previously noted.)

## HOTELS

Tex., Eastland.—C. U. Connelle is reported to erect 40-room hotel; Mayfield Building Co., Contrs.

## SCHOOLS

Mo., Kansas City.—Kansas City Dental College, Dr. C. C. Allen, Pres., let contract to King Construction Co., 18th and Troost Sts., Kansas City, to erect barracks; 1 story; 42x210 ft.; cost \$10,000.

N. C., Rutherford College.—Methodist Episcopal Church South let contract to Griffin Bros., Rutherford College, to erect dormitory; 90x40 ft.; brick; metal roof; wood floors; cost \$36,000. Address M. T. Hinshaw, Rutherford College. (Previously noted.)

Okla., Guthrie.—School Board let contract to Benson & Farrar to construct and install heating plant at Fiefer School; cost \$30,000.

## WAREHOUSES

La., Shreveport.—Foster & Glassell let contract to W. H. Werner, Shreveport, to erect addition to warehouse; brick; cost \$300.

Okla., Tulsa.—Sinclair Refining Co., 11 W. Washington St., Chicago, Ill., let contract to Goodhall Construction Co., Tulsa, to erect warehouse, boiler house and filling station; 2 stories and basement; cost \$50,000. (Previously noted.)

W. Va., Wellsburg.—Eagle Glass & Manufacturing Co. let contract to B. A. Creane to erect temporary storage building; 1 story; 50x100 ft.

furnish equipment for meat-canning factory; blanks, etc., relating to circular (No. 1237) obtainable at this office or offices Assistant Purchasing Agents, 21 State St., New York; 606 Common St., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices in principal cities throughout United States.

Cars (Mine).—Pennsylvania Equipment Co., Philadelphia, Pa.—Prices on 30 to 35 mine cars, 42 or 44-in. gauge.

Cars (Tank).—Pennsylvania Equipment Co., Philadelphia, Pa.—Prices on 15 dirty-oil tank cars; also 5 refined-oil tank cars, 80,000 gals. capacity, for 6 months' lease, with option of re-leasing for additional 6 months.

Castings (Iron, etc.).—John F. Wells, Box 812, West Palm Beach, Fla.—Addresses of manufacturers who can make small cast-iron castings; also nickel plating or silvering of same.

Check Outfit (Corn or Cotton Planter).—Paul Siebenecker, Gonzales, Tex.—Price on check outfit for No. 6 Champion cotton and corn planter.

Copper, Wire, Nails, etc.—Panama Canal, A. L. Flint, General Purchasing Officer, Washington.—Bids until Nov. 7 to furnish copper, wire, nails, cocks, punches, chucks, dies, drills, rods, saws, bolts, hinges, spades, scales, thermometers, saddle covers, ribbed-wire and window glass, rubber matting, flags, umber and lumber; blanks, etc., relating to circular (No. 1236) obtainable at this office or offices Assistant Purchasing Agents, 21 State St., New York; 606 Common St., New Orleans, and Fort Mason, San Francisco; also from United States Engr. offices in principal cities throughout United States.

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**Crane (Locomotive).**—Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—Prices on 15-ton standard-gauge loco- motive crane, suitable for operating clam- shell bucket, about 50 ft. boom, complete with 2-yd. clamshell; 8 wheel preferred; new or second-hand.

**Crane (Locomotive).**—Director-General Military Rys., 7th & B. Sts., Washington, D. C.—Prices on 8-wheel locomotive cranes; 15 tons capacity and up.

**Cutting Machines (Beveled Gear).**—Dill- Crosett, Exporters and Importers, 128 William St., New York.—Prices on beveled gear cutting machines to cut bevels and gear pinions up to 15-in. diam. and 3-in. face; for export to South Africa.

**Cutting and Splitting Machinery (Wood).**—J. H. Anderson, Rembert, S. C.—Prices on wood-cutting and splitting machinery.

**Drag-line Machine.**—Southern Machinery & Equipment Co., 1114 Peoples' National Bank Bldg., Lynchburg, Va. — Dealers' prices on 50-ft. drag-line machine; state condition, location and time of delivery.

**Electrical Supplies.**—B. Nordrup, 2102 Broadway, Apt. 34, New York.—Prices on electrical supplies of all kinds.

**Elevator (Belt Power).**—C. H. Turner, Statesville, N. C. — Prices on belt-power elevator, 1½ to 3-ton capacity, platform not less than 5x7 ft., with rise of about 40 ft. with or without motor.

**Engines.**—D. W. Stewart & Co., Tatum, S. C.—Description and prices on 16 to 24 H. P. engine; also 8 to 12 H. P. vertical engine.

**Engines, etc.**—Southern Iron & Equipment Co., 217 Grant Bldg., Atlanta, Ga.—Prices on 140 to 175 H. P. oil or Diesel type engine, direct connected to 220-volt, 3-phase, 60-cycle generator; could use higher volt- age; also 80 to 90 H. P. oil or Diesel type engine suitable to connect to generator.

**Engines (Gas; Oil; Electric).**—J. M. Fer- nandez, Box 1728, Havana, Cuba.—Prices, view to agencies, on gas, oil and electric engines.

**Evaporator.**—Walter J. Lloyd, Frances Hotel, 327 Ninth St., Miami, Fla.—Prices on second-hand evaporator, 25 to 50 bbls. capacity. (Will manufacture tanning mate- rial from palmetto roots.)

**Fire Extinguishers, Tools, Hardware, etc.** War Dept., Hardware and Metals Division, Office of Quartermaster-General, Unit G, Potomac Park, Washington. — Bids from Oct. 29 (on portion of items) to Nov. 4 (for other items) on miscellaneous hard- ware, etc., including tools, rope, fire ex- tinguishers, trucks, wheelbarrows, pur- chases and contracts to be made by Pro- curement Branch No. 1; on purchases by Procurement Branch No. 2, bids for Oct. 31 on various tools; by Procurement Branch No. 3, bids from Nov. 5 to Nov. 8 on hardware, canteen equipment, etc.; by Procurement Branch No. 4, bids for Nov. 5 on fiber trunk lockers, magnifying re- flectors, rubber bands.

**Fires (Metal).**—Lock Box 275, Crown Point, Ind.—Prices on nest of metal fires to use as private boxes in bank vault.

**Gear Cutter.**—See Milling Machine.

**Generating (Electrical) Equipment.**—See Magnet (Lifting).

**Generators (Electric).**—See Engines, etc.

**Grinding Machinery (Fertilizer and Bone Meal).**—Louisville Rendering Co., Louisville, Ky.—Prices on medium-size fertilizer and bone-meal grinder.

**Hammer (Belt).**—Guyan Machine Shops, Logan, W. Va.—Dealers' prices on belt ham- mer.

**Hoisting (Mine) Machinery.**—Piedmont Mining Corp., Wm. Guest, Pres.-Mgr., 101 W. Robinson St., Gaffney, S. C.— Prices on hoisting outfit; for installation Guyana, S. C.

**Iron (Angle; Channel), etc.**—Guyan Ma- chine Shops, Logan, W. Va.—Dealers' prices on brass rods and strip brass and copper; large angle iron; channel iron ½-in. x 2-in.

**Iron (Wrought).**—Woodstock Operating Corp., Anniston, Ala.—Prices on 4000 to 6000 lb. 6x¾-in. wrought-iron; state shipping point.

**Iron, Steel, Hardware, etc.**—Joaquin Mar- tinez, Lonja del Comercio 438, Habana, Cuba.—Correspondence, view to representa- tion (after the war), with manufacturers of hardware, iron, steel, sugar machinery

and equipment; rails, railroad cars, loco- motives, etc.

**Iron (Black; Planished).**—Hot Air Gas Stove Co., 365 Center St., Little Rock, Ark. Prices on 27 and 26-gauge black iron; 30x 60-in. planished iron.

**Lathe.**—Guyan Machine Shops, Logan, W. Va.—Dealers' prices on lathe about 18 in. x 10 ft. Q. C. G.

**Locomotive.**—H. T. Lambert Co., National Bank Bldg., Huntington, W. Va.—Prices on 50, 60 or 70-ton standard-gauge switch- ing locomotive. State complete specifica- tions, make and where can be inspected.

**Locomotives.**—Pennsylvania Equipment Co., Philadelphia, Pa. — Prices on 30-in- gauge locomotive, about 25 tons; standard gauge locomotive, 70 to 80 tons; Consolida- tion or 10-wheeler.

**Lumber (White Oak).**—W. J. Haynen, Gen. Lumber Supvrs., U. S. Shipping Board, Emergency Fleet Corp., 140 N. Broad St., Philadelphia, Pa.—Prices f. o. b. cars shipping point on 150 pieces 3 in. thick highest quality white oak flitch as follows: To measure at least 12 in. wide at small end on narrow side; 34, 35 or 36 ft. long, preferably 36 ft. long; free from heart, heart shake, bad season checks, split ends, and must be sawn from good, live, sound timber. May contain limited num-

ber small tight knots, not impairing strength of piece; stock to be inspected at point of origin by licensed Government in- spector. Mark bids Requisition BH-153-18 and BH-154-17, Attention Desk F.

**Lumber (White Oak).**—W. J. Haynen, Gen. Lumber Supvrs., U. S. Shipping Board, Emergency Fleet Corp., 140 N. Broad St., Philadelphia, Pa.—Prices f. o. b. cars ship- ping point, naming freight rate to Newark, N. J., on 10,600 ft. B. M. 3x4-random lengths, sound, square-edged white oak, rough; 10,008 ft. B. M. 3x18-12 ft. Mark bids Requisition No. 15220, Attention Desk F.

**Lumber (White Oak).**—W. J. Haynen, Gen. Lumber Supvrs., U. S. Shipping Board, Emergency Fleet Corp., 140 N. Broad St., Philadelphia, Pa.—Prices f. o. b. cars ship- ping point, with freight rate from same to Philadelphia, on 75 pcs. 5x12-16, 6000 ft. B. M. best quality, sound, square-edged white oak, in rough; 75 pcs. 6x6-16, 3600 B. M. white oak, rough; 200 pcs. 6x7-6, 4200 ft. B. M. white oak, rough; 20 pcs. 12x12-20, 4800 ft. B. M. white oak, rough; total, 18,000 ft. B. M. Mark bids Requisition C-9646, Attention Desk F.

**Magnet (Lifting).**—Woodstock Operat- ing Corp., Anniston, Ala.—Prices on lifting

magnet, complete, with electrical generat- ing equipment; state size, also point of shipment.

**Milling Machine.**—Guyan Machine Shops, Logan, W. Va.—Dealers' prices on milling machine or gear cutter.

**Nickel Plating.**—See Castings.

**Piping, etc.**—Comms. District of Colum- bia, 511 District Bldg., Washington, D. C. Bids until Nov. 4 to furnish and install piping and boiler connections at central power plant, and ice plant at reformation and workhouse, Occoquan, Va.; proposal forms, specifications, etc., from Chief Clerk, Engr. Department, 427 District Bldg.

**Pipe (Galvanized).**—J. H. Anderson, Rem- bert, S. C.—Prices on second-hand 2-in. galvanized pipe.

**Planer (Frog and Switch).**—J. L. Neilson & Co., 602 Main St., Winnipeg, Man., Can- ada.—Wants "wired details and prices on 12-ft. or longer (longer preferred) frog and switch planer; good second-hand con- dition."

**Power-plant Machinery.**—Kanawha Col- lieries Co., 207 Charleston National Bank Bldg., Charleston, W. Va. — Prices on power-plant machinery; mines at Swiss, W. Va.

**Pump (Steam).**—Fayetteville Ice & Mfg.

**Roofing (Tin).**—Paul Sebenelcher, Gon- zales, Tex.—Prices on tin roofing for barn.

**Saw (Cold).**—American Forge & Machine Co., Canton, Ohio.—Prices on 42 or 48-in. Newton or Lucas cold saw, motor drive; state condition and where can be inspected.

**Shafting (Cold Rolled), etc.**—Guyan Machine Shops, Logan, W. Va. — Dealers' prices on cold-rolled shafting 1 3-16-in. to 5 7-16-in.; also drop hangers, about 12-in. drop for 2 3-16-in. shafting; borings 1 3-16 in. to 1 in. thick.

**Starch Machinery.**—Dill Crosett, Export- ers and Importers, 128 William St., New York.—Prices on maize starch manufactur- ing machinery for export to South Africa.

**Steel (Disc Harrow).**—Byon Nicholls, Waterloo, S. C.—Prices on disc harrow steel; dimensions 12 in., ¾-in. thick; for cotton chopper wings.

**Stove Legs.**—Hot Air Gas Stove Co., 365 Center St., Little Rock, Ark.—Prices on stove legs.

**Sugar Machinery.**—Joaquin Martinez, Lonja del Comercio 438, Habana, Cuba.— Price on rails, railroad cars, locomotives, sanitation. (See Iron, Steel, Hardware, etc.)

**The Block Machinery.**—Paul Sebenelcher, Gonzales, Tex.—Prices on molds, etc., for manufacturing tile blocks.

**Tinners' Tools and Machinery.**—Guyan Machine Shops, Logan, W. Va. — Dealers' prices on tinners' tools and machinery.

**Valves.**—Hot Air Gas Stove Co., 365 Center St., Little Rock, Ark.—Prices on ad- justable gas valves for stoves.

**Water-works.**—City of Wilmington, N. C., Thos. D. Meares, City Clerk.—Bids until Nov. 18 for improvements and enlargements water-works pumping station at Hilton Park; 100-ft. light-weight cast-iron flanged 14-in. diam. suction pipe with strainer, foot valve and gate valve; 100-ft. discharge pipe with elbows, check valves and gate valves; 5,000,000-gal. centrifugal pump for lifting raw water from Cape Fear River and discharging into sedimentation basin, total head, including suction, 50 ft.; steam- driven turbine engine or double vertical double-acting engine, f. o. b. cars Wilming- ton; unloading from cars, hauling and erecting; concrete foundation for pump and housing; reinforced concrete reservoir with brick baffle walls, sump pit, outlet valve and drain pipe; 7000 cu. yds. earth excavation and disposal; 4 filter units, each 500,000 gals. daily capacity; two 20x30-ft. storerooms, built as second story on present pumping station; including ventilators, stairways, etc., also removing present 8-in. wall and substituting iron columns and cross beams to support upper story; bid- ders to submit with proposals, plans and specifications covering types of pump and filters offered; blanks and information ob- tainable from J. Newton Johnston, City Engr.; bidders requested to visit site and see plans and specifications on file Engr.'s office; bids received on whole or portion of items.

**Water-works Supplies.**—City of Tulsa, Okla., Chas. F. Burke, Auditor.—Bids until Oct. 31 to furnish cast-iron pipe, valves, specials, hydrants, etc.; also for laying piping, placing hydrants, etc.; information and proposal sheets from Commr. of Water and Sewers.

**Wheels (Car).**—Guyan Machine Shops, Logan, W. Va.—Dealers' prices on car wheels, 8-in. to 12-in.

## FOR THE BENEFIT OF

ENGINEERS ARCHITECTS MACHINERY DEALERS  
CONTRACTORS BANKERS MANUFACTURERS and OTHERS

Who find it profitable to follow up daily the industrial, commer- cial, railroad and financial development of the South and South- west as published in this Construction Department,

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ADDRESS: MANUFACTURERS RECORD, BALTIMORE, MD.

## RAILROAD CONSTRUCTION

### RAILWAYS

Ga., Columbus.—The W. Z. Williams Co. of Macon, Ga., has the contract for building the 8-mi. railroad at Camp Benning to connect with the Southern Railway and the Central of Georgia Railway. A big force is already at work. Maj. J. Paul Jones is in charge.

W. Va., Grafton.—Vang Construction Co. of Cumberland, Md., has contract to enlarge the Grafton yards of the Baltimore & Ohio R. R. It also has a contract for improve- ments at Itard, near Terra Alta. H. A. Lane, Baltimore, is Chief Engr.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Capital and Surplus  
\$4,000,000



Total Resources  
\$38,000,000

## The Largest National Bank in the South

Liberal Accommodations to Manufacturing Corporations

**MERCHANTS-MECHANICS  
FIRST NATIONAL BANK  
OF BALTIMORE**

### THE NATIONAL EXCHANGE BANK OF BALTIMORE, MD.

Hopkins Place, Redwood and Liberty Sts.  
Capital \$1,500,000.  
Surplus \$850,000.

#### OFFICERS.

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SUMMERFIELD BALDWIN, Vice-Pres.  
CLINTON G. MORGAN, Cashier.  
JOSEPH W. LEFFLER, Asst. Cashier.  
WILLIAM R. WEIR, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

### Maryland Trust Company

#### BALTIMORE

Capital \$1,000,000

TRANSACTS A GENERAL TRUST AND  
BANKING BUSINESS

Correspondence and interviews  
invited.

### Lithographer, Engraver and Steel Die Embosser

Stationery Especially Designed for Your Business  
Letters are worth more now; have them better  
**ROBERTS & SON, Birmingham, Ala.**  
Stationers and Office Outfitters.

## WE BUY BONDS CITY, COUNTY

Correspondence Invited from Officials and Contractors  
**SIDNEY SPITZER & CO.** New York Cincinnati Toledo

Southern Branch: BELL BUILDING, MONTGOMERY, ALA.

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MEMORIAL PLATES, CHURCH SEALS AND PEW PLATES.

Made on our Premises. Send for Catalogue.

**THE J. F. W. DORMAN COMPANY**  
BALTIMORE, MD.

### Philadelphia Detroit Dallas **Powell, Garard & Co.** 39 South La Salle St. Chicago

We buy Southern Municipal Bonds  
(County, City, School, Road and Drainage District.)

### JOHN NUVEEN & CO.

First National Bank Building, CHICAGO

We purchase SCHOOL, COUNTY and  
MUNICIPAL BONDS. Southern Municipal  
Bonds a Specialty.

Write us if you have bonds for sale.

### First National Bank

RICHMOND, VIRGINIA

Capital and Surplus \$3,000,000

JNO. M. MILLER, Jr., President  
W. M. ADDISON, Vice-Pres. & Cashier  
CHAS. R. BURNETT, Vice-President

### THE BANK OF ALABAMA

ENSLEY, ALABAMA

R. A. TERRELL - President  
J. W. MINOR - Vice-President  
FOSTER HAMILTON Cashier

We Solicit Your Business

## FINANCIAL NEWS

### NEW FINANCIAL CORPORATIONS

Ala., Monroeville.—Bank of Monroeville, capital \$25,000, began business Sept. 25. James K. Keyser, Pres.; A. C. Lee, V.-P.; Jno. M. Coxwell, Cashier. (Lately noted.)

Fla., Largo.—Pinellas County Bank, capital \$20,000, inceptd. John S. Taylor, Pres.; J. A. Walsingham, 1st V.-P. and Treas.; J. S. McMullen, Cashier.

Gal., Macon.—Continental Bank & Trust Co. will change its name to the Continental Trust Co.

Gal., Quitman.—First National Bank, Inc., has purchased the assets of the Citizens' Bank; capital \$150,000; surplus \$75,000. D. G. Malloy, Pres.; P. G. Stanley, C. T. Tillman and J. K. Davis, V.-Ps.; L. M. Bradford, Cashier. Business began August 20.

Gal., Wavercross.—Commercial Bank, capital \$50,000, is about to begin business; L. O. Benton, Monticello, Pres.; K. F. Rymer and P. A. Hay, Wavercross, V.-Ps.; J. M. Norman, Act. Cash.

La., Pointe Coupee.—Pointe Coupee Trust and Savings Bank, capital \$50,000, is reported inceptd.; A. B. Lacour, Pres.; O. C. Morgan and Munford Phillips, V.-Ps.; J. A. Langlois, Cash.

La., Covington.—Commercial Bank & Trust Co., capital \$50,000, surplus \$50,000, began business Oct. 1. E. J. Domergue, Pres.; W. E. Morris, New Orleans, V.-P. (Lately noted.)

Md., Newark.—A new bank is reported being organized by R. F. Powell and John L. Mason.

Miss., Hattiesburg.—Bank of Hattiesburg changed its name to the Bank of Hattiesburg & Trust Co., effective Aug. 1, 1918. At the same time capital was increased from \$50,000 to \$75,000 and surplus from \$25,000 to \$37,500.

S. C., Bethune.—Merchants & Farmers' Bank chartered, capital \$20,000. John T. Stevens, Pres.; W. M. Stevens and W. E. Davis, V.-Ps.

Okla., Dustin.—Farmers' State Bank chartered, capital \$15,000. Incorporators: F. A. Seward, L. Meaders and C. E. Morgan.

Tex., Everman.—First State Bank chartered, capital \$10,000.

Tex., Marietta.—Local parties are reported organizing a new bank.

Tex., Ralls.—State Bank & Trust Co., capital \$50,000, is authorized to begin business. W. E. McLaughlin is Pres.

### NEW SECURITIES

Fla., Miami Beach.—(Water-works).—City votes Nov. 18 on \$40,000 of bonds for development of water-works system. J. N. Lamm, Mayor; J. F. Canova, City Clerk.

La., Alexandria.—(Road).—Rapidus Parish Police Jury, T. C. Wheaton, Pres., asks bids until noon Nov. 18 for \$75,000 of 5 per cent. bonds, Road Dist. No. 14. Further particulars will be found in the Proposals Department.

Miss., Hattiesburg.—(Water-works).—City, on Oct. 12, sold to Well, Roth & Co., Chicago, at accrued interest, blank bonds and \$1200 premium, \$25,000 of bonds; T. E. Benson, Mayor.

Miss., Meridian.—(School).—Lauderdale County, W. R. Pistole, Chancery Clerk, on Oct. 3, at \$150 premium and accrued interest, to the Citizens' National Bank of Meridian, \$5000 of bonds Dry Creek Consolidated School Dist. (Lately noted.)

Mo., Platte City.—(Bridge).—City is reported to have sold \$20,000 of bonds. Address The Mayor.

N. C., Greensboro.—(School).—City will vote in January on \$400,000 of bonds. J. Norman Wills, Chmn. School Board.

N. C., Winston-Salem.—(Street).—Ordinance has been prepared providing for the issue of \$12,000 of 6 per cent. 10-year bonds. Address Board of Aldermen, W. H. Holcomb, Secy.

Okla., Garber.—(Water-works).—City voted \$25,000 of bonds. Address The Mayor.

Tex., Big Springs.—(Road).—Howard County recently defeated \$75,000 bond issue. Address County Commrs.

Tex., Corpus Christi.—(Seawall).—City has had approved by Atty.-Gen. \$600,000 of 5 per cent. serial bonds. Address The Mayor.

Tex., Dublin.—(Road).—Road Precinct No. 1, Erath County, voted \$150,000 bonds. Address County Commrs.

Tex., Fort Worth.—(Road).—Tarrant County plans to vote on \$400,000 of bonds; Geo. E. Hoxey, County Judge.

Tex., Fort Worth.—(School).—Gertie Common School Dist., Tarrant County, votes Oct. 28 on \$5000 of bonds. Address County Commrs.

Tex., Greenville.—(Road).—Hunt County, Sept. 28, defeated \$200,000 of Commerce Dist. bonds. Address County Commrs.

Tex., Magnolia Park, P. O. Houston.—(Warrants).—Magnolia Park recently sold to J. L. Arlt, Austin, Tex., \$30,000 of 7 per cent. bonds, maturing serially from 1919 to 1943.

Tex., Roby.—(Road).—Road Dist. 3, Fisher County, voted \$50,000 of bonds; M. A. Henson, County Judge.

Tex., Vernon.—(Street, Water).—City contemplates issuing \$25,000 of bonds. Address The Mayor.

### Book Reviews.

Thy Son Liveth: Messages From a Soldier to His Mother. Boston. Little Brown & Co., 1918. Price 75 cents.

This unusual book may convey consolation to many who have suffered bereavement in the loss of loved ones. The writer, whose name is not disclosed, relates that her son, who was an amateur operator of wireless telegraphy, told her before going abroad that he would try to get in touch with her through the medium of his small wireless station at home, the use of which she had learned from him. One day, while she was reading a happy letter just received from him by mail, a call came upon the wireless in which he said: "Mother be game. I am alive and loving you. But my body is with thousands of other mothers' boys near Lens. Get this fact to others if you can. It's awful for us when you grieve and we can't get in touch with you to tell you we are all right," etc. This is one of four wireless telegrams received, after which automatic writing became the medium of spirit communication. All of them are interesting and very human in their contents. The idea that there is no extinction in death is emphasized again and again. In the foreword the publishers say that the manuscript of the book came from an author known to them, and of whose sincerity they were convinced. Realizing that the messages were "no ordinary spirit communications," they asked for further



This bank offers a special service to Southern brokers, manufacturers, shippers and banks for the collection of drafts, particularly B/L drafts on Chicago and other Northern points. Please write us for particulars.

We also solicit correspondence and interviews with high-grade Southern concerns regarding a direct Chicago banking connection.

### UNION TRUST COMPANY CHICAGO

Capital and Surplus, \$3,000,000.00  
Deposits, \$34,000,000.00

Established 1869

### FOR SALE Timber, Coal, Iron, Ranch and other Properties Southern States. West Indies. Mexico. **GEO. B. EDWARDS** (Broker)

22 Broadway NEW YORK, N. Y.  
Confidential Negotiation. Investigations.  
Settlements and Purchases of Property.

## Have You Considered Exchanging Securities?

You may be able to obtain a stronger security yielding as much as one you now hold; or a considerably higher yield from a security of equal strength. We shall be glad on request to make definite suggestions to meet individual requirements.

Write for Circular, 16-59

### A. B. LEACH & CO., Inc.

Investment Securities  
62 Cedar St., New York  
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## Want Government Work?

No cancellation of orders or other troubles by our method of representation here. Get our proposition of how we are working for other manufacturers here.

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906 Union Trust Bldg., Washington, D. C.

Write us about investment in Birmingham Real Estate.

### Jemison Real Estate & Insurance Co.

Real Estate  
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Exporters Importers  
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Write us your needs in all  
lines of business.

information, to which the author responded: "I ask you to regard the book as truth, unaccompanied by proofs of any sort, making its own explanation and appeal."

**Fuel Economy in Boiler-rooms.** By A. J. Majer and Charles H. Bromley. Second Edition. 308 pages. New York: McGraw-Hill Book Co., Inc.; London: Hill Publishing Co., Ltd. 1918. Price \$2.50.

The title of this book in its first edition was "Fuel Economy and CO<sub>2</sub> Recorders," but its scope has now been broadened, and the new title more accurately covers its contents. The volume is very comprehensive, its chapters successively treating of the principles of combustion, analysis of coal, flue gas analysis, heat lost in flue gases, draft and its measurement, chimney design, evaporation, boiler efficiency, heat balance, feed-water treatment, CO<sub>2</sub> recorders, fuels, combustion of coal in boiler furnaces, boiler settings, hand-firing soft coal, burning fuel oil under boilers, combustion losses in boiler operation, operation of mechanical stokers and economical boiler ratings. There is much data in tabular forms and a number of pictures and diagrams. Mr. Bromley says in the preface that although the book is intended

primarily for the student, the fireman and the power plant operating engineer, the consulting engineer will also find it useful. Constructive criticism and suggestions are desired. The volume is handsomely bound in green cloth, with gilt lettering.

**Poems With a Punch for Patriotic People.** Published by H. E. Negley, author and compiler, Indianapolis, Ind. Paper cover. Price 50 cents.

This little book has been prepared, according to Mr. Negley, with his original work and other selections either germane or entertaining, with the ends in view of describing certain phases of the war, certain phases in the life of the soldier as well as of his home folks, besides providing him with a volume of such dimensions that he may keep it with him for entertainment and also for assurance "that the folks back home are behind the game to the limit." He has combined with much fruit of his own pen of real merit some of the best of the current war poetry, together with a number of old favorites which everyone likes to reread now and then for their cheer and for the treasured memories they awake. The volume (only 110 pages) will be welcome to many a man in our service across the sea as well as those at home.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Oil Engine for Electric Plant.

The town of Belhaven, N. C., has purchased from Fairbanks, Morse & Co., Inc., through the Atlanta office, a 100-horse power crude-oil engine for operating the town electric-lighting plant which has heretofore been operated with steam power. The new engine will be directly connected to a General Electric alternator with direct connecting exterior.

### Page Steel & Wire Co. Changes.

C. D. Morton has left his position as sales engineer for the Page Steel & Wire Co. to become a captain in the General Engineer Depot, U. S. A., at Washington. Chas. E. Goodnow, formerly assistant sales manager of the electrical and special wire department of the American Steel &

(Continued on next Page)

**York Safe and Lock Company**  
MANUFACTURERS OF  
**SAFES and VAULTS**  
YORK, PA. BALTIMORE, MD.

## Don't Pay Freight on Poor Fuel!

You pay the same freight on poor fuel as on good fuel. Consider the small difference in the cost of good fuel at the mines as compared with poor fuel, and pay freight only on good fuel. Consolidation Coal is a combination of heat and efficiency. Let us tell you what Consolidation Coals will do for you.

Georges Creek Big Vein Coal, Somerset Smokeless Coal, Fairmont Steam Gas Coal, Millers Creek Block Coal and Elkhorn Coking, By-Product and Gas Coal. Each with a distinct and tested heating value.

## THE CONSOLIDATION COAL CO.

INCORPORATED

F. W. WILSHIRE, General Manager of Sales  
BANKERS' TRUST BUILDING, 14 WALL STREET  
NEW YORK, N. Y.

### BRANCH OFFICES

Boston  
Portsmouth  
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London, England  
New York  
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Chicago  
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Northwestern Fuel Co., Pioneer Press Bldg., St. Paul, Minn.

## LOANS MADE TO STATES, CITIES, COUNTIES, ETC.

### Also Entire Issues of Bonds of Successful Industrials Purchased

Largest Capital and Surplus of Any Financial Institution in Maryland or Any Southern State.

Established 1884

Resources \$21,000,000

## MERCANTILE TRUST and DEPOSIT CO.

OF BALTIMORE

A. H. S. POST, President

F. G. BOYCE, Jr., Vice-President

CHARLES L. HEHL, C. P. A., President

JOHN KUCHLER, C. P. A., Vice-President

ERNEST E. WOODEN, C. P. A., Sec. and Treas.

## BALTIMORE AUDIT COMPANY

901-903 Calvert Building

BALTIMORE, MD.

## MR. CONTRACTOR

If you have any bonds or warrants to sell, or know where you can obtain work and take same in payment, kindly advise, so that we can negotiate with you for their purchase. We have representatives in Birmingham, Alabama, Tampa, Florida and New Orleans, Louisiana. Correspondence solicited.

W. L. SLAYTON & CO.

Toledo, Ohio



## SERVICE TO MANUFACTURERS, CONTRACTORS and BUSINESS PEOPLE

We will represent you in Washington and undertake the sale of your products to the Government and contractors for the Government.

AGENCY SERVICE CORPORATION  
Suite 403 Maryland Building 1410 H St. N. W., Washington, D. C.

## HAVE YOU BONDS FOR SALE?

WE BUY ALL CLASSES OF MUNICIPAL BONDS, INCLUDING CITY, COUNTY, SCHOOL, PAVING, ROAD AND DRAINAGE

*The Hanchett Bond Co., Inc.*  
39 SOUTH LA SALLE ST., CHICAGO

## Strayer's Business College, Inc.

Charles and Fayette Sts.  
Baltimore, Md.

Ninth and F Sts. N. W.  
Washington, D. C.

Fully accredited by the National Association of Accredited Commercial Schools. Teaching latest methods in Shorthand, Typewriting and Commercial Subjects. Departments headed by Degree Teachers.

The Government needs TEN THOUSAND STENOGRAPHERS, and a representative of the Civil Service Commission visited Strayer's Business College recently and urged us to provide as many as possible.

This is YOUR opportunity. Classes now open. Day and Night School all the year. Enroll at once. Write us today.

## HIGHLAND PINES INN

Open From December 1st to May 1st

Superb Climate. Not too cold or yet too hot. The resort with the just-right weather.

Accessibility. Only a day or night from New York or Florida on the splendidly equipped trains of the Seaboard Air Line Railway.

Extensive and delightful views in all directions. Adjacent to 18-hole course of Southern Pines Country Club. Good automobile roads. Excellent hunting. Consumptives not received.

## HIGHLAND PINES INN

Weymouth Heights, Southern Pines, N. C.

"JUST FAR ENOUGH SOUTH"

is near several army camps, two of which are:

**CAMP BRAGG**—A brigade artillery camp with remount station near Fayetteville. This camp will accommodate 54,000.

**CAMP GREEN**—A guard camp, Base Hospital Depot, near Charlotte, N. C. This camp will accommodate 40,000.

A. I. CRAMER, M. H. TURNER, Proprietors



(Continued from preceding page)

Wire Co., and more recently identified with building construction in Washington and Brooklyn for the army and navy, is now with the Page Steel & Wire Co., 30 Church St., New York. His energies will be devoted to sales and service on Armo iron welding rods and Copperweld electrical wire.

#### New Secretary Chosen.

The Chicago Pneumatic Tool Co. announces the election of H. D. Megary as secretary to succeed W. B. Seelig, resigned.

#### New Officers Appointed.

The Barber-Greene Company announces the strengthening of its organization as follows: F. E. Smith, chief engineer, formerly of the engineering department of the Stephens-Adamson Manufacturing Co., of the Granby Mining & Smelting Co. and the American Zinc & Chemical Co.; George C. Sanford, superintendent, formerly of the Elevator Supplies Co. and the Otis Elevator Co.

#### Important Sale of Coal Lands.

Announcement is made in another column that 5200 or more acres of coal lands will be sold at public auction at 10 A. M. November 12, at Newburg, Preston county, W. Va., together with a large amount of mine timber and 25 dwellings, the coal consisting of 2000 acres of Lower Kittanning, 2000 acres of Upper Freeport, an unknown quantity of Pittsburgh Big Vein and 1300 acres of surface coal. Further information may be obtained from the Virginia-Maryland Coal Corporation, Marine Bank Bldg., Baltimore, Md. The property is on the main line of the Baltimore & Ohio Railroad.

#### A Seasonable War-Time Circular.

The American Rolling Mill Co., Middletown, O., is distributing, in its outgoing mail, copies of a circular issued by the Chamber of Commerce there, and named "The Monstrous Thing Called 'Kultur'." Within is an illustration showing one of the spiked clubs captured from the Germans during a raid, when 32,000 of these cruel instruments of warfare were taken. "This instrument," it says, "is used to kill the enemy wounded, thus saving the necessity of taking and feeding prisoners." On the opposite page is a picture, "The Superman," which is a photograph of a German prisoner, who is described as "a product of the 'Kultur' which goes hand in hand with the club." Several extracts from the writings of prominent Germans illustrating their aim to dominate the world by "Kultur" are also given in the circular. C. C. Lynd, Healy Bldg., Atlanta, Ga., is Southern district manager for this company.

#### Up-to-date Welding Plant Established.

The Welded Products Co., Birmingham, Ala., announces that its plant is near completion and as it has already installed equipment it is prepared to consider immediate additional contracts and to execute orders. Its facilities will cover the entire field of autogenous welding, including, besides its large oxy-acetylene installation, both thermite and electric-welding processes. Among the standard products which the plant will handle are all kinds of tanks, condensers, separators, boilers, pipe coils, gear rails, stacks, chutes, steel truck bodies, containers, buckets and all other fabricated metal products which may be handled by the autogenous process to eliminate riveted or bolted joints. The company is employing the highest skilled operators, specialists in welding and cutting; in technical understanding and experience in the treatment of metals. The service department will handle repair work and outside construction, portable welding and cutting plants being moved by its motor trucks to any job which cannot be brought to the main plant.

#### Value of Advertising in the Manufacturers Record.

The Birmingham Slag Co., 1607-1616 Jefferson County Bank Bldg., Birmingham, Alabama, writes to the MANUFACTURERS RECORD, under date of October 22, as follows:

We received a letter from a New York firm, Export & Import Merchants, a few days ago, copy of which is attached hereto.

We believe that this letter will be of interest to you as it is to us, because we feel that this inquiry, for quotation, is directly traceable to the advertisements that we have run in your splendid magazine from time to time in the past.

The Birmingham Slag Co. is covering some territory when New Zealand is in the mar-

ket for blast-furnace slag and a New York broker writes us to quote them on slag f. a. s. New York for export to New Zealand.

This is indeed a very fine testimonial for the value of advertising space in the MANUFACTURERS RECORD, and it occurred to the writer that your editorial staff could possibly use this letter to advantage. If so, you are at liberty to do so, in so far as we are concerned, but would ask that you kindly withhold the name of the firm asking for quotation.

Yours truly,

BIRMINGHAM SLAG CO.,  
C. E. IRELAND, Sales Manager.

The inquiry is as follows:

New York, October 14, 1918.

The Birmingham Slag Co.,

Jefferson County Bank Bldg.

RE: V13: Iron Manure (Slag).

Gentlemen—Our representative in New Zealand has written us requesting us to quote on iron slag, and we will thank you to be good enough to advise us whether you are in a position to quote us on this commodity, as we are informed that there is quite a demand for same.

As stated above, this commodity is intended for export to New Zealand, and when quoting it is essential that you include the following:

1. Your best price per ton, f. a. s. New York.

2. Method of packing for ocean transportation, stipulating net and gross weights and cubic measurements.

3. Best delivery you can make per month, stating quantity available.

4. Send sample of slag quoted on.

5. State your best terms.

Trusting to be favored with a reply at your earliest convenience, we beg to remain,

Yours,

FOR THE FOURTH LIBERTY LOAN.

## TRADE LITERATURE

### Desk Memorandum and Calendar Pads.

The Central Frog & Switch Co., Cincinnati, O., is distributing desk memorandum pads containing a calendar running from October, 1918, to March, 1919, both inclusive. This company is a manufacturer of track equipment in all of its various forms and details.

### New Sales Manager.

Sheritt & Storer Company, Inc., manufacturer of machine tools, railway and machine-shop equipment, 603 Finance Bldg., Philadelphia, has engaged Frank H. Brown as sales manager, and he has assumed his new duties. Mr. Brown was one of the founders of the Brown & Zortman Machinery Co., Pittsburgh, and was more recently with the Davis Machine Tool Co. of Rochester, N. Y. He is widely known in these lines of business.

### Electric Trucks, Tractors, Etc.

In Bulletin 18-2 the C. W. Hunt Company, Inc., 501 Fifth Ave., New York, describes the Hunt storage battery industrial trucks, tractors and trailers, this including the standard machines, besides several types equipped with side and end dumping bodies and crane. They are widely employed for the transportation of manufactured products, as well as bulk materials in industrial plants, warehouses, steamer and railroad terminals, etc. They combine simplicity and strength. The book contains superior illustrations, accompanied by full specifications of the different types of machines. Copies of it will be forwarded by the company to any address upon request.

### Savannah Builders' Exchange Prospering.

John N. Davis, secretary-treasurer of the Savannah Builders' Exchange, writes that it "is in splendid condition, notwithstanding other conditions and being one year old." Its new president, A. W. Morehouse, in his address at the annual meeting recently, said that as the war is now curtailing improvements and taxing our resources to defeat the enemy, "so will the after-the-war period tax the brain and muscle of this country to feed and clothe the hungry masses of Europe. \* \* \* This means great agricultural and industrial activity for this country, such as we have never witnessed before."

### Deep Well Power Pump.

A finely illustrated catalog relating to the non-pulsating, double-stroke, deep-well power

pump manufactured and sold by the United Iron Works Company, Kansas City, Mo., under license from the Pomona Manufacturing Company of Pomona, Cal., has been issued. It says that the pump is designed for the economic pumping of municipal and public service water-works, permanent and quick mine drainage, mine or shaft-sinking, dewatering mines, private and railroad water supply, manufacturing and other industrial plants, ice-making, boiler feed, condenser purposes, hydraulic elevators, irrigation and drainage, fire protection, and also all general or special pumping. It pumps from any practical depth desired, and ranges in capacity from 25 to 2000 gallons per minute, being practical for pressure up to 300 pounds per square inch. Full descriptions and tables are given.

### Handy Booklets About Zinc Products.

The New Jersey Zinc Co., 55 Wall St., New York, has put out a new set of four booklets, entitled, respectively, "Pigments," "Metals," "Rolled Zinc," and "Zinc Dust," which it collectively calls its "Handy Reference Library of Zinc Products." Each booklet describes certain of the company's zinc products, giving information that the average person might like to have. Copies will be sent on request to "legitimate firms interested in zinc." About January 1 the company expects to occupy its new office building at Maiden Lane and Front St., New York.

### Hand Book of Oil, Paint and Drug Trade.

The fall edition of the Green Book for Buyers, issued by the Oil, Paint and Drug Reporter, has been published for 1918. It is a complete directory, containing the names and addresses of first hands in the various products which enter into the numerous branches of the oil, paint and drug trade, and it includes manufacturers, importers and large dealers in comprehensive form. The contents are alphabetically arranged as to the various articles, but there is also a comprehensive index. The book is of such dimensions that it may be easily carried in the pocket, the pages being narrow, yet the printing is superior, and the paper excellent, the quality of the whole being maintained. The address of the publishers is 100 William St., New York city.

### Pit Car Loader for Mining.

A fine, clear half-tone picture adorns the cover page of Bulletin No. 246 of the Jeffrey Manufacturing Company, Columbus, Ohio, and shows the pit car loader made by this concern at work in a coal mine. The bulletin says that the advantage of this light, inexpensive conveyor is that its usefulness is not seriously affected by the various delays that are unavoidable in coal mines; for instance, if the conveyor is compelled to remain idle for, say, 15 minutes, in waiting for a car, the men will have work to do in the meantime. They may pull down coal from the face, or else load up the front end of the conveyors so as to have a carload ready without shoveling when a fresh car is obtained. Increased output of coal is also secured, for the men can double the number of cars loaded per shift.

### Sterling Grinding and Polishing Machinery.

L. Best & Company's latest catalog of Sterling grinding wheels and machinery displays the merits of the large line carried at their establishment, 75 Barclay St., New York city. The grinding wheels, it is stated, will run wet or dry, are free-cutting and even tempered, free from dust and smell, and will not glaze or heat. Polishing machinery and supplies are also illustrated and described in this comprehensive book of 72 pages. The pictures are clear and distinct, and the information, including tables, is complete in every detail. There are also suggestions and other advice concerning the care of grinding wheels and machinery, all of which is valuable to users of these products.

### Tate-Jones Furnaces.

Heat-treating furnaces of large capacity are considered in the latest catalog of Tate-Jones & Company, Inc., furnace engineers, Pittsburgh. One of the pictures it contains

shows three of these furnaces of unusual dimensions installed in a large plant in the Pittsburgh district. They are of the cast type, and are used for heat-treating large forgings. Each furnace is 42 feet long, but it is said that accurate temperatures are maintained over the entire furnace in spite of its size. Several other illustrations relate to furnaces of other sizes, but all of them large. The company also manufactures small furnaces for similar uses, besides complete oil and gas-burning installations. The company's engineering is always at hand to solve knotty problems submitted by manufacturers who have special conditions to be overcome. It is composed of men of technical training who have also had practical experience in the furnace work.

### Makes Airships and Other Machinery.

Airships, peanut machinery, garage-disposal machinery and fuel-plant machinery are described and illustrated in Catalog No. 100 of the Richmond Manufacturing Company, Enid, Okla., and Phoenix, Ariz., which says that its facilities are "also for manufacturing anything to help our Government win the war." The airship was designed by G. E. Richmond, president of the company. It is said to be puncture-proof, the numerous gas bags which support it being so arranged that a shot could not penetrate them, and the aluminum tape to the machine act as parachutes, always spread so that in case of accident it safely descends to the ground. It is driven by a gasoline motor, which charges electric batteries that also can be used as motors when quiet operation is necessary to prevent detection by the enemy. A threshing machine which prevents grain going through to the straw pile is an invention of Mr. Richmond. Peanuts and beans may also be threshed. Still another of his inventions is a fuel making machine, which is likewise illustrated and described.

### Important Consolidation Announced.

The W. J. Crouch Company Inc., and Rowson, Drew & Clydesdale, Inc., announce their amalgamation. Hereafter all of their trading and manufacturing operations will be conducted under the name of Rowson, Drew & Clydesdale, Inc., with general offices at 68 William St., New York. P. G. Donah, president of Rowson, Drew & Clydesdale, Inc., will continue in that position, and I. Smullyan, president of the W. J. Crouch Company, Inc., will act as managing director of the new firm. Victor E. Karulinski and A. E. Hearne, the former with the Crouch Company and the latter with the other concern as treasurer and general manager, will hereafter act as joint general managers of the new concern. Mr. Karulinski conducts the Crouch steel division and Mr. Hearne directing all other trading. The engineering division of Rowson, Drew & Clydesdale will be further developed and expanded to meet the much greater demand for their gravity runways, portable elevator conveyors and other labor-saving devices, this to be done under the direction of John J. Smart, secretary and assistant general manager of the Crouch Company. H. Lad Landau, assistant secretary and general sales manager of the latter, will continue in that capacity, and John H. Allen will remain purchasing agent, assisted by M. Greenberg of the other company. Albert Smullyan, O. W. Anders, traffic manager, and other heads will also continue in the employ.

## OBITUARY.

### Death of John P. Hopkins.

John P. Hopkins, chairman of the board of directors of the Independent Pneumatic Tool Co., Chicago, died at his home in that city on October 13 as the result of an attack of influenza. He was 61 only a few days. Mr. Hopkins was a native of Buffalo, N. Y., and was 60 years of age. He moved to Chicago in 1880, and worked as a machinist with the Pullman Palace Car Co. Then he was a partner in the firm of Seccord & Hopkins, dealers in general merchandise, at Pullman, Ill., laying there the foundation of his fortune. He became interested in the tool company in 1905. He was mayor of Chicago in 1893 and 1894, serving for the unexpired term of Carter H. Harrison, Sr. Since the beginning of the war he has been secretary of the Illinois Council of Defense. Mr. Hopkins was a bachelor. Six sisters, three of whom are married, survive him.

# W S M

STEEL PLANT EQUIPMENT  
COKE OVEN MACHINERY  
GAS PRODUCERS  
ORE AND COAL HANDLING MACHINERY  
SPECIAL CRANES  
MINING MACHINERY  
HYDRAULIC TURBINES



## SHIPYARD CRANES

The tendency of modern shipyard practice toward the hammerhead type of crane is again demonstrated. We have just completed and erected for William Cramp & Sons the example shown above.

This crane handles 75 tons at 50 ft. radius and 10 tons at 95 ft. radius. Photograph shows crane under test load of 90 tons.

# THE WELLMAN-SEEVER-MORGAN CO.

CLEVELAND, OHIO, U.S.A.







# Classified Opportunities

## BUSINESS OPPORTUNITIES

**ONLY 5¢ CENTS PER SQ. FT.**  
Switching property—must be sacrificed: 900 sq. ft.; big bargain. This property adjoins one of the suburbs of Kansas City, Mo. Low rent for employees; switching facilities for several cars at a time; labor plentiful. This property should be worth 50c. per sq. ft. Wainwright & Wainwright, Attorneys, 200 Ridge Arcade, Kansas City, Missouri.

**BIG SUGAR PROPOSITION.** 80,000 acres sugar or sugar beet land. Can sell one-third stock to Florida people. \$7.50 per acre. Cane never freezes. No trade. Sadler, Fort Myers, Fla.

**WE CAN SELL YOUR BUSINESS** for cash, no matter where located; no publicity. Describe fully in first letter. All correspondence confidential. Herbert, Webster Bldg., Chicago.

**FOR SALE—General merchandise store** in thriving town of 3000, doing \$5000 business per month. Inventory August 1, \$12,000. Reason for selling, manager will be drafted. For particulars address Box 469, Norton, Va.

**WANTED—Capital to complete oil well,** 100 feet deep, best of indications; location of well passed on by competent geologists. Have under lease 30,000 acres of land with good indications on all of it. Own drilling rig complete and 200 acres in fee where well is located. Will make any reasonable contract with parties furnishing capital to finish well. Address R. O. Pearson, Colorado, Texas.

**HOTEL—Great opportunity in Newport News.** I am drafted and I have to get ready to go, so I will sell my fortune at cost price for quick deal. Hotel, five stories, brick building, 80 excellent rooms with all conveniences, large dining-room, poolroom, large lobby, elevator, steam heat, etc. \$16,000 required in advance. If you mean business, write owner. Address N. P., Postoffice Box 615, Newport News, Va.

**CONTROLLING INTEREST FOR SALE—**An opportunity for a practical ice and cold storage man to acquire the controlling interest in a 40-ton ice plant and 100-carload public storage. Will bear closest investigation. Address Box 482, El Dorado, Kansas.

**MONEY TO LOAN** on large timber tracts, from \$50,000 to \$100,000, 6 per cent. interest; also large entire issue of bonds and stocks of railroads, gas, timber, manufacturing, etc., financed. Describe fully what you want. Jno. A. Martin, Aberdeen, S. D.

**WANTED—To make loan on factory** located at New Wilson, Okla. For full particulars write the Sun Light Carbon Co., Wilson, Okla. Preferred risk loan \$12,000. Assets \$70,000. First-mortgage loan at 8 per cent for 12 months.

**SALESMEN VISITING** the larger industrial plants and public institutions off the beaten trail can materially increase their income by representing manufacturer of an essential specialty on commission. Sales unit about \$75—commission 30%; no samples, and very little time necessary. Harding Bros., Inc., 1755 Berteau Ave., Chicago.

## GOVERNMENT CONTRACTS

**REPRESENTATION before Congress, all Courts, Government Boards and Departments.** We specialize in daily reporting Government requirements. Expert attention to Government bidders and contractors. U. S. Legal Corporation, Washington, D. C.

**WILLIAM J. DOW** announces that he is now located at 201-227 Colorado Building, Washington, D. C., where he will give special attention to matters relating to Government contracts, licenses, income and war taxes, war boards, admiralty and Court of Claims.

## INCORPORATING COMPANIES

**DELAWARE CHARTERS.** Stock Without Par Value. Directors Need Not Be Stockholders. Other important amendments (March 20, 1917). Write for new DIGEST (4th ed.). CORPORATION COMPANY OF DELAWARE, Equitable Building, Wilmington, Delaware.

## TRADE ACCEPTANCES

"Trade Acceptance" forms supplied. Request sample. Commercial Form Co., Pacific, N. J.

## PATENT ATTORNEYS

**PATENT YOUR IDEAS.**—\$3000 offered for certain inventions; book "How to Obtain a Patent," and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, Patent Attorneys, 978 F St., Washington, D. C.

## PATENT ATTORNEYS

**PATENTS, TRADE-MARKS AND COPYRIGHTS.**—Write for list of patent buyers and inventions wanted. \$1,000,000 in prizes offered for inventions. Send sketch for free opinion as to patentability. Our four books sent free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attorneys, 712 Ninth St., Washington, D. C.

**PATENTS AND TRADEMARKS** Procured by a former Examining Official of the U. S. Patent Office. **NORMAN T. WHITAKER.** Attorney-at-Law, Mechanical Engineer, 180 Whitaker Bldg., Washington, D. C. Inquiries Invited.

## SHIPYARD SITE

**SHIPYARD SITES.**—10 to 50 acres with water front. If interested you are invited to inspect this property. Jos. A. Wallace, 211 Birkley Ave., Norfolk, Va.

## FACTORY SITES

**BALTIMORE FACTORY AND TERMINAL SITES.**—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements.

**"OUR MOTTO":**  
**FACTORY AND TERMINAL SITES**  
IN BALTIMORE.  
Wm. B. Martien & Co., Ninth Floor, Lexington St. Bldg., Balto., Md.

**MOTOR TRUCK FACTORY.** Ideal location for motor truck or automobile factory or assembling plant, near tide-water, surrounded by abundance of raw materials. Would take interest ourselves and like to correspond with manufacturers seeking location or with man of experience, ability and means who would organize and manage a company. Talltimber Lumber Company, Talltimber, Sabine County, Texas.

## EXCELLENT FACTORY SITE,

100 feet x 300 feet.

Adjoining our plant, with railroad and brick highway facilities. 1000 H. P. electric power, also steam, refrigeration and water supply available. 1 1/4 miles from center of city of 10,000 population.

Inquiries Solicited.

**ORLANDO WATER & LIGHT COMPANY,** Orlando, Fla.

## INDUSTRIAL PLANTS FOR SALE

### ICE AND COLD STORAGE PLANT

**FOR SALE.**—Properties of the Independent Ice Co. at Wilmington, N. C. Ice plant located corner 7th and Brunswick Streets. One sixty (60) ton York machine plant equipped in every particular. Cold-storage plant corner 2nd and Campbell Streets, 200,000 cubic feet capacity; built by Boyle-Robertson Construction Co., Washington, D. C.; also a seventy (70) ton rebuilt Columbus absorption plant at Chadbourn, N. C., built for the purpose of icing Armour Car Line refrigerated cars. These are good opportunities for experienced ice and cold-storage men. Our reason for selling is that all parties interested are completely absorbed with other interest, whereby they can give no time to this business. The Independent Ice Co., Wilmington, N. C.

### WOODWORKING PLANTS

**LARGE WOODWORKING FACTORY.** 3-story brick building, equipped with American machines throughout, all new; dry-kilns, fine power plant, large storage yard, good sidings, connects four railroads; plenty empty cars, located on river, and can ship any point on Ohio or Mississippi Rivers; rich timber area to supply plant for century to come; largest axe plant, glass plants, armor plant, powder plant in world surrounds this property; also steel and chemical plants. Wonderful opportunity for right party. Will sell on easy terms. Owner now in Government service. Wire or write P. P. Breece, Box 344, Charleston, W. Va.

## INDUSTRIAL PLANTS FOR SALE

### FOUNDRY, MACHINE SHOP AND WOODWORKING PLANT

**EQUIPPED Foundry and Machine Shop.** Central Location. Abundant Help. Penna. Sidings, Steel Frame Buildings, Large Reservoir, Early Possession. Level Ground Suitable for Growing Concern.

**Large Fully Equipped Woodworking Plant.** Modern Machinery, Dry Kilns, Railroad Sidings, etc. **CROSS & BROWN COMPANY,** 18 E. 41st Street, New York City.

### BLAST FURNACE

**FOR SALE OR LEASE.**—Small charcoal blast furnace. Unlimited quantity of low-phosphorus brown ore on the property. Plenty of good wood that can be had at reasonable prices. Furnace can be started in 30 days. Address J. G. Thomson, 140 Coffee St., Talladega, Ala.

## SITUATIONS WANTED

**OFFICE MANAGER** with executive training, familiar with cost and financial accounting, purchasing and credits; now in eleventh year secretary-treasurer of machinery manufacturing corporation in the South; no room for further promotion in present corporation, so desires connection with office end of manufacturing concern; college education; age 41; good health; married. Salary, \$6000 minimum. Confidential. Address No. 5170, care Manufacturers Record, Balto., Md.

**WANTED.**—A position at \$5000 a year or better as manager or assistant manager of a business by a man 55 years old who has managed boats and lumber and timber business most of his life; correct habits; references beyond cavil. Address No. 5184, care Manufacturers Record, Balto., Md.

**AMERICAN,** now holding executive position, with thorough practical knowledge of Latin America and European markets, knowing by long commercial trips those countries, and Spanish, French and Italian languages, wishes responsible position with concern desiring the services of an expert exporter. Address No. 5189, care Manufacturers Record, Baltimore, Md.

**SALES MANAGER.**—For years with large manufacturing corporation, resourceful, efficient organizer and business builder, also experienced in credits and plant management, desires new connection. Salary or commission. References AL. Address No. 5186, care Manufacturers Record, Baltimore.

**MANAGER AGRICULTURE, FRUIT AND TRUCKING.**—The writer has had many years' practical experience. No small proposition considered. Southern States preferred. Address No. 5181, care Manufacturers Record, Balto., Md.

## MEN WANTED

**IF ACTUALLY QUALIFIED** for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminary for such positions: executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bixby, E64-66 Niagara Street, Buffalo, New York.

**WANTED AT ONCE** SUPERINTENDENTS, FOREMEN AND EXPERIENCED MEN

for street paving, roads, water-works and other construction. State what branch more familiar with.

**ROBERT G. LASSITER & CO.,** Arcade Building, Citizens' Bank Bldg., Norfolk, Va. Raleigh, N. C. Home Office: Oxford, N. C.

**WANTED.**—A thoroughly competent, practical superintendent and estimator, to take charge of a marble finishing plant. Climatic conditions unexcelled; location in one of the middle States. Salary satisfactory to right party. Give references, experience, married or single. Address, No. 5187, care Manufacturers Record, Baltimore, Md.

**ARMATURE WINDERS WANTED.**—12 first-class men on general repair work, A. C. and D. C. First-class wages, light shop, congenial surroundings; no labor trouble. Address No. 5188, care Manufacturers Record.

**CHECKERS AND DRAFTSMEN.**—Tennessee Coal, Iron & Railroad Company requires men experienced in steel plant work. Apply, giving education, experience, salary and reference, to R. E. Brakeman, Chief Engineer, Fairchild Works, Birmingham, Alabama.

**WANTED—QUARRY SUPERINTENDENT,** experienced handling large stone quarry. Also experienced foreman in water quarrying and general construction. Also clerks, bookkeepers and stenographers. Raleigh Granite Co., Norfolk, Va.; Raleigh, N. C.

**LIVE MEN** wanted to handle side line in connection with boiler-room specialties. Good commissions, exclusive territory, liberal contract. If you are a hustler and a stickler, write us. The Boiler-Kote Company, 343 S. Dearborn Street, Chicago, Illinois.

## MACHINERY AND SUPPLIES

**FOR SALE.**—A quantity of heavy cold-rolled steel shafting, pillow blocks, roller-bearing hangers, wood pulleys, rope drive, etc.; also one 15-hp. matcher, one Mitsu & Merrill 3-M Hog, Fans, etc. List on application. Graves, Manhart, George & Co., Buffalo, N. Y.

**FOR SALE.**—Triumph ice tank, containing 380 cans, 29 wide and 19 long. Equipped with shell type brine cooler 33" diameter and 14' long. Tank, cooler, top, cans are all in first-class condition, having been used only five years. Produced average 27.5 tons ice per day during July and August. Can be loaded on 30 days' notice. Write Siloam Springs Ice Co., Siloam Springs, Ark.

**FIFTY PEAUDLER ENAMEL TANKS,** capacity 1860 gallons to 18,000 gallons. Also wooden vats, beer filters, copper kettles, beer coolers and refrigerating machinery.

**CHAS. S. JACOBOWITZ,** Brewery Dismanter, Buffalo, N. Y.

**ENGINE, BOILER FOR SALE.**—One 25 H. P. engine and 30 H. P. boiler; pulleys and shafting in good repair. S. F. Woodall, Woodland, Ga.

**FOR SALE.**—Power plants and miscellaneous electrical equipment. St. Cloud Public Service Co., St. Cloud, Minn.

**FOR SALE.**—Seven 100 H. P. and one 150 H. P. horizontal tubular boilers. Two Worthington compound steam pumps, 14x29x12x15. Two Cameron steam pumps, 12x24x10x23. Several boiler feed pumps. New and second-hand 8 and 10-inch centrifugal pumps, for sand or water. One Rand Imperial type No. 10 air compressor. Duplex steam end and compound air end. M. A. Waldo, Receiver, Bartow, Fla.

**FOR SALE—CIRCULAR SAW MILL.** Complete with steam feed, edger, trimmer, cut-off saw, live rolls, sawdust and wood conveyors, live sorting table, roll-off wagon, Berlin A-1 planer, 1 1/2 H. P. boiler, 1 1/2 H. P. boiler, 2 engines. Mill is a complete unit, now sawing 20 ft. small logs daily. Will be cut out within a month. The Fox Park Timber Co., Laramie, Wyo.

**FOR SALE.**—Four-ton ice-making machinery. "York" compressor, coils, tank, cans and 25 H. P. De La Vergne oil engine. Write Apalachicola Packing Co., Apalachicola, Fla.

**FOR SALE.**—Horizontal storage tanks, capacities 9000 to 21,000 gallons, our specialty. Prompt shipment. In some cases immediate. Sharpville Boiler Works Co., Sharpville, Pa.

**GASOLINE TRACTOR AND DUMP WAGONS FOR SALE.**—60 H. P. Pioneer 4-cylinder wagons with dump body, capacity 4 yards, in good shape; 4 Gullion wagons with dump body, capacity 4 yards; wagons good, bodies need overhauling. An ideal outfit for mining or lumber camp, road builders or farmers. Entire outfit for \$1650. F. L. Wilson, 601 Main Street, Lynchburg, Va.

**BOILERS, tanks, engines, machinery,** anything of steel construction is high priced, necessarily so; send your requirements and let us furnish used articles like new; if not on hand we will locate same for you; also write us if you have anything of the above nature to sell; let us market it for you. Service Sales Co., Room 604, American Bank Bldg., Kansas City, Mo.

**Wheel and Circular Sawmill Complete** for Operating. Capacity 20,000 Feet. Write for blueprints and machinery list. 35 H. P. Center Crank Wheeland Engine. 25 H. P. Byers Log Loader with car. 13-ton, upright type, Climax Locomotive. All above in first-class condition. H. P. Wyman Lumber Co., Bristol, Va.

**FOR SALE.**—One 2 1/2-inch two-stage centrifugal pump; one 3-inch two-stage centrifugal pump; one 3-inch Myers bulldozer, all guaranteed to be in good working condition. Also, about 200 feet of 5 and 6-inch black wrought-iron pipe in excellent condition. Cohoon Bros., Orlando, Fla.

**FOR SALE.**—Two Fairbanks Morse duplex pumps, sizes 8-12, 10-12. Good condition. Wylie Bros., 326 West Grand, Oklahoma City.

**FOR SALE.**—One practically new lime-burning outfit, capacity ten tons daily; kiln, cooler, gas producer, motors, blower complete. Joseph Hancock & Sons Company, Wilmington, Delaware.

**FOR SALE.**—One ten-horse-power Otto gas engine; also one complete electric-plating plant. M. E. C. Co., Fredericksburg, Va.

**FOR SALE.**—Complete equipment of machine shop, consisting of lathes, gear cutter, etc. For particulars address W. E. Rosenbaum, 929 Century Bldg., St. Louis, Mo.

## MACHINERY and SUPPLIES WANTED

**WANTED.**—Mills, plants, electric machinery, drykilns. We buy for cash f. o. b. shipping points. Our prices for old mills are the highest. Let us prove it. Meltreger Company, 1403 So. Blue Island Ave., Chicago, Ill.



# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close November 7, 1918.

**PROPOSALS FOR COPPER, WIRE,**  
Nails, Cocks, Punches, Chucks, Dies,  
Drills, Rods, Saws, Bolts, Hinges, Spades,  
Scales, Thermometers, Saddle Covers, Rib-  
bed wire and Window Glass, Rubber Matting,  
Flags, Umber and Lumber. Sealed proposals  
will be received at the office of the General  
Purchasing Officer, The Panama Canal,  
Washington, D. C., until 10:30 o'clock A. M.  
November 7, 1918, at which time they will be  
opened in public, for furnishing the above-  
mentioned articles. Blanks and information  
relating to this circular (1236) may be ob-  
tained from this office or the offices of the  
assistant purchasing agents, 24 State Street,  
New York City; 606 Common Street, New  
Orleans, La., and Fort Mason, San Fran-  
cisco, Cal.; also from the United States En-  
gineer offices in the principal cities through-  
out the United States. A. L. FLINT, Gen-  
eral Purchasing Officer.

Bids close November 9, 1918.

**PROPOSALS FOR EQUIPMENT FOR**  
Meat Canning Factory. Sealed proposals  
will be received at the office of the General  
Purchasing Officer, The Panama Canal,  
Washington, D. C., until 10:30 o'clock A. M.  
November 9, 1918, at which time they will be  
opened in public, for furnishing the above-  
mentioned equipment. Blanks and informa-  
tion relating to this circular (1237) may be ob-  
tained from this office or the offices of the  
assistant purchasing agents, 24 State Street,  
New York City; 606 Common Street, New  
Orleans, La., and Fort Mason, San Fran-  
cisco, Cal.; also from the United States En-  
gineer Offices in the principal cities through-  
out the United States. A. L. FLINT, Gen-  
eral Purchasing Officer.

Bids close November 6, 1918.

## \$15,000 6% Bonds

Notice is hereby given that the Board of  
Supervisors of Clay County, Mississippi, will  
sell to the highest and best bidder at the  
Court House in West Point on the 6th day  
of November, 1918, \$15,000 District No. 2 bonds  
bearing 6 per cent. interest, payable  
annually, \$1000 of said bonds to mature each  
year. Purchaser to furnish blank bonds and  
to pay their own attorney fee and accrued  
interest to date of delivery. A certified  
check for \$500 must accompany each bid.  
All bids must be sealed and filed by 2 o'clock  
P. M. of said date.

L. J. HOWARD,  
Clerk.

Bids close November 18, 1918.

## \$75,000 5% Bonds

ROAD DISTRICT NO. 14 OF RAPIDES  
PARISH, LA.

Notice is hereby given that the Police Jury  
of the Parish of Rapides, State of Louisiana,  
offer for sale Seventy-five Thousand (\$75,000)  
Dollars of five (5%) per cent. bonds,  
to be issued by Road District Number Four-  
teen of Rapides Parish, Louisiana, said sale  
to be made on the 18th day of November,  
1918, in the Police Jury room at the court-  
house in the City of Alexandria, Louisiana.

Sealed bids will be received by the said  
Police Jury up to 12 noon November 18,  
1918, that being the date and order fixed  
for the sale of such bonds—each bid to be  
accompanied by a certified check for at  
least one (1%) per cent. of the face value  
of the said bonds. Said bids should be ad-  
dressed to T. C. Wheadon, President of the  
Police Jury of Rapides Parish, Louisiana.  
The award of said bonds will be at a  
price not less than par, and the Police Jury  
of Rapides Parish, Louisiana, reserves the  
right to reject any and all bids.

T. C. WHEADON,  
President of the Police Jury of Rapides  
Parish, Louisiana.

Bids close November 5, 1918.

## Road Construction

Sealed bids will be received by the High-  
way Commission of District 2, Montgomery  
County, Mississippi, at the Courthouse,  
Winona, until 12 o'clock noon Tuesday, No-  
vember 5, 1918, and at that time publicly  
opened, for Federal-Aid Project No. 13, the  
same being a part of State Trunk Road No.  
—, between Memphis and Jackson.

The length of road to be improved or con-  
structed is 9.26 miles, and the principal  
items of work are approximately as follows:  
Gravel in place, 16,908 cu. yds.

Plans and specifications are on file in the  
office of the State Highway Department at  
Jackson and in the office of the Chancery  
Clerk in the Courthouse, Winona, Miss. Any  
additional information may be secured from  
the State Highway Engineer, Jackson, Miss.  
The right to reject any or all bids is re-  
served.

Cash or certified check for Five Hundred  
Dollars made payable to Highway Commis-  
sion of District 2, Montgomery County, must  
accompany each bid as evidence of good

faith and as a guarantee that if awarded  
contract the bidder will execute the contract  
and give bond as required.

XAVIER A. KRAMER,  
State Highway Engineer.

Bids close November 9, 1918.

## Ditch Construction

Morganfield, Ky.

Sealed bids will be received by the Board  
of Drainage Commissioners of Union County,  
Ky., up until 1 o'clock P. M. Saturday, No-  
vember 9, 1918, for the construction of the  
Geo. Smith Public Ditch, at the office of the  
Drainage Board, Morganfield, Ky.

Work consists of 4½ miles of open ditch,  
approximately 400,000 cu. yds. earth excava-  
tion.

Plans and specifications may be seen at the  
County Clerk's office or at the office of Nor-  
man R. Orcutt, Chief Engineer, Morganfield,  
Ky.

All bids must be accompanied by a certified  
check for \$1500, and the right is reserved to  
reject any and all bids. The bidder to whom  
the contract is let will be required to give  
bond for 75 per cent. of the total amount of  
his bid.

Bidding blank furnished on request. All  
bids to be addressed to Norman R. Orcutt,  
Secretary Drainage Commission, Morganfield,  
Ky. Work to be completed within one year  
from date of signing contract.

NORMAN R. ORCUTT,  
Chief Engineer and Secretary,  
Morganfield, Ky.

Bids close November 18, 1918.

## Improvement and Enlargement of Water Works Plant

Wilmington, N. C.

Sealed proposals will be received by the  
Mayor and Council of the City of Wilming-  
ton, N. C., until noon November the 18th,  
1918, and then publicly opened, for furnish-  
ing all apparatus, materials and labor and  
equipment necessary to improve and enlarge  
the water-works pumping station at Hilton  
Park. Approximate requirements are as  
follows:

1. (a) Approximately 100 feet of light-  
weight C. 1. flanged 14 inches diameter suc-  
tion pipe, with strainer, foot valve and gate  
valve, furnished and laid, complete.  
One hundred feet of discharge pipe, with

elbows, check valves and gate valves fur-  
nished and laid, complete.

(b) One five million-gallon centrifugal  
pump for lifting raw water from the Cape  
Fear River and discharging it into the reser-  
vation basin; total head, including re-  
servation, fifty feet.

One steam-driven turbine engine or  
double verticle double-acting engine to op-  
erate raw-water pump, f. o. b. cars Wilming-  
ton, N. C.

(c) Unloading from cars, hauling and  
erecting same.

Building concrete foundation for pump  
and housing for same.

(d) One reinforced concrete reservoir, with  
brick baffle walls, with sump pit, outlet  
valve and drain pipe in place as per plans  
and specifications.

Approximately 7000 cu. yds. of earth excava-  
tion and disposal of same.

111. Four filter units, similar in type and  
size as the present filters, each having half  
million gallon daily capacity.

112. Two new storerooms, built as a sec-  
ond story on the present pumping station,  
size approximately 20x30', built in the con-  
formity to the present building, including  
doors, windows, ventilators, stairways, etc.,  
complete, also removing present 8" wall, sub-  
stituting iron columns and cross beams for  
supporting upper story.

Bidders will furnish and submit with their  
proposals, plans and specifications covering  
types of pump and filters offered.

Proposals must be made out upon blanks  
furnished by the City of Wilmington, sealed  
and marked: "Proposals for Improvement of  
Water-works Plant," and addressed to  
Thomas D. Meares, City Clerk and Treas-  
urer.

Each proposal must be accompanied by a  
certified check, made payable to the City  
Clerk and Treasurer for 10 per cent. of the  
amount of the proposed bid.

Proposal blanks and information will be  
furnished without charge upon application  
to J. Newton Johnston, City Engineer.

Bidders are requested to visit the site of  
the work, and review the plans and specifi-  
cations on file in the Engineer's office.

Bids will be received as a whole or in  
part on any of the items set forth on the  
proposal sheet.

The Mayor and Council reserve the right  
to reject any and all bids or to accept any  
item of any bid that may be for the best  
interest of the city so to do.

Dated October 21, 1918.  
THOS. D. MEARES,  
City Clerk and Treasurer.  
J. N. JOHNSTON,  
City Engineer.

# DERRICKS FOR ALL

## Industrial, Engineering and Construction Works



SOUTHERN TRANSPORTATION CO., BARGE BUILDING YARD, NORFOLK, VA.

**ALLEN ENGINEERING CO. Pennsylvania Building PHILADELPHIA, PA.**  
**DERRICKS, ENGINES, CABLEWAYS**



# Will You Take a Little Trouble to Help These Boys Have Comfort?

The Y. M. C. A. needs *men* for war service. The nation has given generously in *money* for this work but *money* won't do everything—certainly not in war.

The Y. M. C. A. is in special need of men to serve as **Truck Drivers and Mechanics.**  
**75 Drivers and 25 Mechanics every month.**

We are making this appeal to the business men—the employers of the country to get those men for us.

The Y. M. C. A. service behind and on the battle lines is a highly organized business. And as in every other big business, transportation is one of its greatest needs.

The canteen stocks have to be kept moving or the boys go without the comforts they crave so much—tobacco—chocolate—pastry—little army “luxuries.”

After a long march or a hard fight or a trick in the trenches the boys flock to the “Y” canteen. And it sure is tough if the “Y” man has to say “Nothing doing boys, the truck didn’t get in today.” Suppose *your* boy were there!

The Y. M. C. A. does not want men who are eligible for the army. But there are men in this country (lots of them) who are over 37 years old and are not in Class 1 of the draft and who know how to drive a truck or keep an engine in shape. We want *them*. We want 100 a month.

Maybe you have a man with that training working for you or you know such a man somewhere. Maybe he has not realized how much he can do to help the

boys. A little talk from you would start him our way.

*Will you act as a recruiting officer to get that man for us?*

There is no *profit* in this work for any man who serves but he will get his living and his family, if he has one, will be taken care of and all his life he will rejoice over the service he has rendered. Talk with men you know who might do this work. Explain to them the *need* for their service. Get them interested and thinking.

In order that you may talk to such men on the best basis fill in and mail the coupon and we will furnish full information.

## Help us get these Men

Ed M. Willis,  
Y. M. C. A., 347 Madison Ave., New York.

It may be possible for me to get recruits for Y. M. C. A. truck service in France. Please send me full information regarding that service.

Signature .....

Street and No .....

Town and State .....



# Machinery, Equipment and Supplies WANTED

## WANTED—IMMEDIATELY

### Compound Engine Generators

One Each

100 to 150 KW

300 to 375 KW

220 or 440 Volt

3 Phase, 60 Cycle

Describe fully and name cash price. Will also consider turbo units.

Address C. E. G.

Care of MANUFACTURERS RECORD

## WANTED

PIPE - - - 3" to 10"  
RAILS - - - 12 lbs. to 35 lbs.  
FLUES - - - 3" to 4"  
TANKS - - - any size

If you wish to buy or sell, communicate with us.

### Keystone Pipe & Supply Co.

BUTLER, PA.

## WANTED

Car Wheels, 8" to 12".  
Brass Rods and Strip Brass and Copper.  
Large Angle Iron.  
Channel Iron, 3/4" x 2".  
Cold-Rolled Shafting, 1 3/16" to 5 7/16".  
Drop Hangers, about 12" drop for 2 3/16" shafting.  
Boxings, 1 3/16" to 5 7/16".  
Plates, 3/8" to 1" thick.  
Turners' Tools and Machinery.  
Milling Machine or Gear Cutter.  
Lathe, about 18" x 10" Q. C. G.  
Bell Hammer.

Guyon Machine Shops

Logan, W. Va.

## CORRUGATED

SHEET IRON

## WANTED

ALSO

## I-BEAMS

NATHAN KLEIN & CO.

WALKER AND CENTRE STS. N. Y. CITY

## PUMP and PIPE

### WANTED

One Dean Triplex Pump, 5" intake, 4" discharge, second-hand, in first-class condition; also 3000' 4" Standard Second-Hand Pipe, with threads and couplings.

B. CASSELL & CO., Chattanooga, Tenn.

## WANTED

### Good Back Turning Lathe

suitable for turning Peavie Handles. Describe fully and price. Address

A-18 care of Manufacturers Record  
BALTIMORE, MD.

## WANTED

1000 tons of 60-lb. Relaying Rails, for Southern delivery. Prompt shipment essential.

The Isaac Joseph Iron Co.

525 Reading Road Cincinnati, O

## WANTED ELECTRIC MOTORS

SECOND HAND WILL PAY BIG PRICES

ALTERNATING and DIRECT CURRENT from 1/4 to 500 Horse Power.  
1-2-3 phase ALTERNATING and 220 Volt DIRECT CURRENT

### What Have You To Offer?

Send list with prices. Quick Action. If interested will mail check.

MONARCH ELEC. MOTOR CO.

Morris Benjamin, Prop.

212 Centre St.

NEW YORK CITY

## SADDLE TANK LOCOMOTIVE WANTED

1-42" guage saddle tank locomotive from 16 to 20 tons wanted. Must be in good condition. Quote prices and give specifications. Address

The J. G. Tilley Co., Inc.  
BRISTOL, VA.

## We Will Buy

All classes of Contractors

## Used Machinery Equipment Rails

Etc.

Terms draft attached  
B/L all shipments

The National Equipment Corp.  
1322 Widener Bldg., Philadelphia, Pa.

# Your Government Needs Your Spare Locomotive Cranes

Here's an opportunity to co-operate with your Government. The abnormal conditions prevailing in the steel industry make it impossible for manufacturers of locomotive cranes to supply the Government's needs.

In order to expedite various war activities the Government will pay reasonable prices for locomotive cranes in good condition.

Look over your crane equipment and if you have any 8-Wheel Locomotive Type Cranes of 15 tons capacity or higher, communicate at once with this department.

Yours for the winning of the war,

Director General of Military Railways,

7th and B Streets,

Washington, D. C.

## Special Advertisements of General Interest.

### FOR SALE—The Entire Business of THE THREADING MACHINE COMPANY

Manufacturing the well known line of Sandusky Stocks and Dies. The business includes patents, drawings, jigs and tools, good-will, and a fairly large stock of finished and semi-finished machines. We are conducting this business as a profitable side line, but on account of important Government contracts are unable to continue it, and offer it for sale at a very attractive figure. For further particulars address

SECRETARY, SANDUSKY FOUNDRY & MACHINE CO.  
SANDUSKY, OHIO

Manufacturing Plant in Cincinnati switching limits on Southern R. R. siding, fronting on Ohio River, main building 60x200 ft., 3 stories, 13, 12 and 11-ft. ceilings, foundry building addition 50x60 ft., 1-story buildings additional, approx. 12,500 sq. ft.; suitable for most any manufacturing purposes; good labor district. **Steel Frame Buildings**, 1-240', with two each 30-ton capacity 70'-22" span, 230-volt, D. C. electric traveling cranes. 1-Structural Steel Building, 185' long, 65' wide, 20' high from floor. 1-Structural Steel Building, 146' long, 70' wide, 20' in clear to eaves. **Capula**, 48" and 67", Colliery, many others. **Pressure Blowers**—Cincinnati Blowers, Nos. 1, 2, 3, 3.5 and many others. **Open Tank**, 3000 gals. capacity, 8' 2" dia. **Closed Tank**, 4000 gals. capacity, built of sections bolted together. **Locomotive Crane**, Link-Belt Electric, 220-volt, 3-phase, 60-cycle A. C., 15-ton cap., 45' boom; equal to new. **Lincoln Planers**, one 16'x4'-4" heads; two 14'x6'-5'x4'-4" heads. **Large Lathe**, 64"x30", back geared power feed, 6" raising blocks. **Smokestacks**, 30" to 54". **Molding Machines**—Stearns & Adams feed, 6" raising blocks. **Tabor power squeeze and pattern drawing for flask 14"x16"**. **Exhaust Blowers**, 30", 50", 60" double, many sizes, single. **Ventilating Fans**, 30", 40", disc type. **Storage Capula and Forge Blowers**, volume blowers. **Wind Pipe**, 15" dia. black and galvanized. **Compressors**—Two 10x9 Ingersoll-Rand, one 6x6 vertical Curtis, one 10x8 straight line (unknown make), 4-ft. flywheel; one 8x8 Marsh, one Berry two-stage, 225 ft. cap., all belted. The following steam driven: Two 14x30x30, one 12x24x30 low pressure, one 12x12x12 and one 16x18x18 Ingersoll, one 10x8x10 Battle Creek. **Air Receivers**, high pressure, 3x6 ft. 2-4x8 ft. 1-2' 6"x10 ft. 1-1'x6", 1-2'x5", 1-1' 9"x4", 1-30"x5", 1-30"x6". **Core Machines**, 1-Wadsworth for round cores, 5" to 7", 1-Wadsworth without dies. **Steam Engine**, 7x8 horizontal, automatic, condition 3". **Drag Line Buckets**, 4, capacity each 1/2 yd. **Brass Melting Furnaces**, new, first-class. **Drag Line Buckets**, 4, capacity each 1/2 yd. **Gas Engines**, 5-10-15-20 H. P.; gasoline engines, 2 and 4, 11-16" inside diam. **Bronze Pumps** for brine or acids, with pressure 100-150 lbs. **Motors**—1/2, 1, 2, 3 H. P.; D. C. and A. C., 110-220-volt, one and three-phase, 60-cycle. **Cranes**, hand traveling, 2-27' 9" span, 10-ton; 3-31' 3/2" span, 5-ton, with trolleys and hoist; 2-24' span, 1 and 2-ton; 1-26' 3" span, 3-ton; 1-3 ton all steel Northern jib, 20' swing, 20' under jib. **Trolleys**, 2-6-ton, geared for 24" I-beams; 1 plain roller bearing for 12" I-beam; 1 plain for 6" I-beam. **Hoists**, 1 each 2, 3, 5, 8-ton chain hoists.

THE CLIFTON-PRATT CO. Cincinnati, O.

### GOVERNMENT REPRESENTATION

We will represent your interests with the different Government Departments in Washington and Philadelphia, keeping you in touch with the situation at all times. Our plan of operation is entirely consistent with Government requirements and we are operating successfully.

Maple, Moore & Lockwood  
SUITE 219

District National Bank Building  
WASHINGTON, D. C.

1322 Widener Building  
PHILADELPHIA, PA.

### WANTED COLD SAW

42" or 48" Newton or Lucas Make, motor drive. Give condition and best price, stating where same can be inspected.

The American Forge & Machine Co.  
Canton, Ohio

### Wanted

1-50-60 or 70-ton Standard gauge switching Locomotive

Give complete specifications, price, make and location for inspection.

THE H. T. LAMBERT CO.

First National Bank Bldg. Huntington, W. Va.

### WANTED

1/2, 3/4 and 1", also 2 and 2 1/2 Steel Wire Ropes, long lengths; 2000 H. P. Water-Tube Boilers; lot 4 and 6" Wrought Pipe; two small-belted and steam-driven Air Compressors. All to be second-hand. Give full description.

Lock Box 41

Phillipsburg, N. J.

### Batesville-Cushman MANGANESE FIELD IN ARKANSAS

This field is undergoing a rapid development at this time. Ore-bearing area is expanding with prospecting. New mines are being brought in weekly. Produces both high and low grade ores in commercial quantities. Write for free booklet.

BATESVILLE BOARD OF TRADE  
BATESVILLE, ARK.

### We are dealers in CHESTNUT POLES and POSTS

We offer a few cars, 7' 30" poles at \$3.75. F. O. B. cars here. Yards on L. & N. & T. C. R. R.

C. E. NORTHRUP & SON  
GALLATIN TENNESSEE

### Wanted

A medium size

Fertilizer and Bone Mill Grinder  
LOUISVILLE RENDERING CO.  
Louisville, Ky.

### WROT IRON Wanted

4000 to 5000 linear feet 6"x3/4" Wrot Iron. State price and shipping point.

WOODSTOCK OPERATING CORP.  
ANNISTON, ALA.

### WANTED SECOND-HAND

Iron Roofing, Iron Siding, Iron Covering of all kinds. Will pay good prices on either large or small lots. Damaged material of the above description from fire jobs, abandoned or dismantled plants will bring you good money. Write us and give description.

M. FEITEL HOUSE-WRECKING CO.  
3700 to 3800 Tulane Ave. New Orleans, La.

### WANTED STEEL BUILDING

Good, strong, second-hand Steel Building, about 70x180 or 200'. Suitable for foundry, 25 or 30-ton crane capacity. Address

Crescent Foundry Co.  
110 Brown Race Rochester, N. Y.

### SECOND-HAND BAGS FOR SALE

75,000 first-class second-hand bags. Offer same for 15c apiece f. o. b. Roanoke, Va. Write or wire. Will be sold immediately.

Roanoke Scrap Iron & Metal Co.  
Box 611 Roanoke, Va.

## FOR SALE

### New Fabricated Steel for two Buildings

1-Heavy Building 40' 8 1/2" by 145', 62' 10" to lower chord of truss. Weight of steel about 300 tons.

1-Light Building designed for three stories, 21' 8 1/2" by 220', 37' 3" to lower chord of truss. Weight of steel about 130 tons.

Buildings are in our plant, but have never been erected. Rivets, Bolts and Working Drawings can be furnished. Immediate delivery can be made.

Sizer Forge Co.

Buffalo, N. Y.

## PUBLIC AUCTION

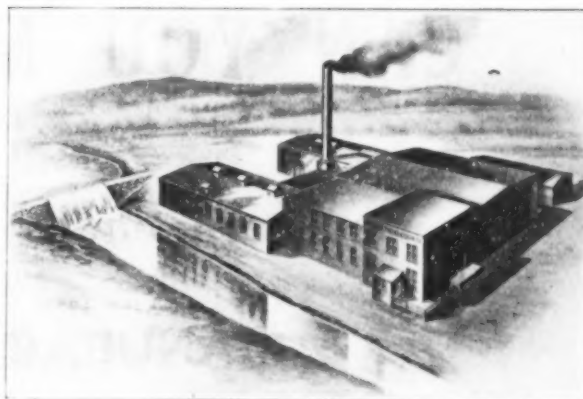
2,000 acres Lower Kittanning, same amount Upper Freeport; unknown quantity Pittsburg Big Vein; 1,300 acres of surface, with large amount mine timber; twenty-five dwellings; located at Newberg, Preston County, W. Va., main line B. and O. R. R. Sale 10 A. M., NOVEMBER 12, 1918, on the property. The right is reserved to reject any and all bids.

For Information Apply

Virginia-Maryland Coal Corporation  
104 Marine Bank Building, BALTIMORE, MD.

## AN ISOLATED MILL FOR SALE

Suitable for any kind of manufacture  
26,000 square feet floor space  
34 acres of property, three tenant buildings  
2-acre lake pure spring water



Located in Northern New Jersey, adjacent to Central Railroad of New Jersey and D. L. & W. R. R.

Excellent power plant—

Boilers, 350 horse-power  
Engines, 150 horse-power  
Electric generator 55 k.w. and motor 50 k. w.  
Complete electric lighting equipment  
1000 feet steel shafting.

100 per cent. sprinkled. Low insurance rates.  
90,000-gallon Hungerford & Terry filter.

Write or call

SUPERIOR THREAD & YARN CO.  
334 Fifth Avenue NEW YORK CITY



## Bargains in Machinery and Supplies.

### FOR SALE

New 60 Cycles, Single-Phase, A. C. Motors, St. Louis Electrical Works make, 1800 R. P. M.

No.	H. P.	Voltages.	Net Prices.
6	$\frac{1}{4}$	110-220-440	\$20.50
6	$\frac{1}{2}$	110-220-440	24.00
12	$\frac{1}{4}$	110-220-440	31.00
5	$\frac{1}{2}$	110-220-440	41.00
2	$\frac{3}{4}$	110-220-440	51.00
6	1	110-220-440	60.00
3	$1\frac{1}{2}$	110-220-440	76.00
6	2	110-220-440	90.00

Voltages not interchangeable.

Motors furnished with ball bearings.

Prices quoted include rails and pulleys.

Your inquiries for electric and steam equipment solicited, such as Alternating and Direct Current Units, Motors, Centrifugal Pumps and Air Compressors.

**Electric Machinery Equipment Co.**  
714 W Van Buren Street, Chicago, Ill.

### FOR SALE

- 1-11x36 Lane & Bodley Corliss Engine.
- 1-Steam Dryer System for Brick Plant of 25,000 per day capacity.
- 1-McIntosh & Seymour high-speed, 7x9 Engine.
- 1-Steele & Sons Brick Machine, Pug Mill, Hoisting Drum, Clay Feeder, Pulley Shafting, etc.
- 1-Dewey Brothers Locomotive.

**Jenkins Brick Company**

Montgomery Alabama

### We Make a Specialty of Dismantling

Old plants of every description, such as saw-mills, electric-light plants, etc. Our terms are spot cash. Advise us what you have to offer.

**THE PIEDMONT IRON & METAL CO.**  
BALTIMORE, MD.

### JIB CRANES

Three Special Electric Gantry-Type Jib Cranes, 220-volt, D. C. or A. C. circuit, 3-ton capacity, 30-ft. radius. Rigidly built according to Government specifications. Never been used. Bargain.

**VICTOR R. BROWNING & CO.**  
17701 Lake Shore Blvd. CLEVELAND, OHIO

### OIL ENGINES FOR SALE

Four (4) Westman Heavy-Duty 50 H. P. and one (1) 35 H. P. Oil Engines. Never been used. Immediate shipment. These engines are suitable for Cotton Gins, Elevators, Pumping, Electric-Light Plants, etc.

**BAY CITY DREDGE WORKS**  
2609 Center Avenue Bay City, Mich

### 1 WESTINGHOUSE CO. GAS ENGINE

2-cylinder, vertical stationary type, No. 72, rated 26 H. P.; good condition. \$500 f. o. b. New Haven, Conn.

**The New Haven Sand Blast Co.**  
New Haven, Conn.

### FOR SALE

The Knitting Machinery of a Modern Southern Mill

We are offering for sale all of the machinery in our plant, consisting of about 20 Wildman Knitting Machines and Sievers; about 50 Sewing Machines, and the entire plant complete, equipped for making ladies' misses' and boys' union suits; also vests and pants. Machinery in operation, and can be inspected at any time. Address

### SOUTHERN KNITTING MILL

Care Manufacturers Record BALTIMORE

**10,000 Gallon Cyprus Tank**  
with 50 ft. steel structure  
**CHEAP.**

**NATHAN KLEIN & CO.**

208 Centre Street NEW YORK

### OIL ENGINES

- 1-70 H. P. De La Vergne.
- 1-50 H. P. De La Vergne.
- Both engines practically new, having been thoroughly overhauled by the De La Vergne Company.
- 1-100 H. P. Diesel; first-class condition; run for electricity.
- 1-150 H. P. Miez & Weiss; first-class condition.

**ALBERT HERMAN**

201 Baldwin Ave. JERSEY CITY, N. J.

### Gas Engine and Producer FOR SALE

65-horse-power Columbus Gas Engine, with Smith Gas-Producing Machine. All complete, including pipes, tanks, pumps, pulleys, belts, etc., for complete installation. Apply

**B. J. McDermott**

535 Tilghman St. Allentown, Pa.

### TANKS

FOR SALE-3 Large Artificial Gas Tanks; 1 is 115 ft. in diameter, about 345 ft. in circumference and 30 ft. high; 1 is 80 ft. in diameter, about 245 ft. in circumference and 25 ft. high; 1 is 75 ft. in diameter and 22 ft. high. Tanks have double jacket around the sides, and columns for same. All in good condition.

**TRI-STATE PIPE CO., Bellaire, Ohio**

### FOR SALE

- 2-160 H. P. Fire-Tube Boilers, De Queen, Arkansas.
- 1-150 H. P. Fire-Tube Boiler, Mena, Ark.
- 1-35 H. P. Producers' Natural-Gas Engine, Alma, Ark.
- 1-Arrington & Simms 100 H. P. High-speed Steam Engine, Mena, Ark.
- 1-50 H. P. Type "Y" Fairbanks-Morse (6) Engine, Ozark, Ark.
- 1-75 H. P. Type "Y" Fairbanks-Morse (6) Engine, De Queen, Ark.
- 1-150 H. P. Type "Y" Fairbanks-Morse (6) Engine, De Queen, Ark.
- 1-Westinghouse 50 K. W., 3-phase, 60-cycle, 2300-volt Generator, Ashdown, Ark.
- 1-130 K. V. A. Allis-Chalmers 2-phase, 60-cycle, 2300-volt Generator, complete, with exciter and switchboard, De Queen, Ark.
- 1-50 K. W. Westinghouse Generator, 3-phase, 60-cycle, 2300-volt, complete, with exciter and switchboard, De Queen, Ark.
- 2-80 H. P. Fire-Tube Boilers, complete, with breeching and singular stack; in good condition, Mena, Ark.
- 1-150 H. P. Corliss Boiler; first-class condition, De Queen, Ark.

**Commonwealth Public Service Co.**

311 Barnes Bldg. Muskogee, Okla.

### FOR SALE

- 1-Allis-Chalmers Engine, heavy duty rolling mill type, 225 H. P., 14-foot fly-wheel, Piston 16"x48", Corliss valves. Non-condenser. Excellent condition.
- 1-Erie Engine, 8"x14" piston. Very good condition.
- 9-Struthers Wells & Co. steel cylindrical Retorts, Cast-Iron Doors, 11"x5'x7'10". Excellent condition.
- 2-150 H. P. Coatsville Boilers, return tubular, 72'-1" Tubes 18" long, 125 lbs. pressure; almost as good as new.
- 2-1000-gallon Copper Stills, with steam coil and live steam, each equipped with about 7' vertical copper tube condensers.
- 10-Vertical Copper Tube Condensers, with steel jackets.
- 1-Mitts & Merrill Hog No. 5, together with edging grinder.
- Various Steel and Galvanized Iron Tanks, from one to ten thousand gallon capacity. Address

**QUEEN CITY IRON & METAL CO., Charlotte, N. C.**

### HENRY POTTS & CO.

650 Real Estate Trust Bldg., Philadelphia

Will erect, paint or dismantle STEEL BUILDINGS or STACKS.  
Heavy MACHINERY HANDLED.  
BOILERS installed.  
Will purchase for cash PLANTS or MACHINERY.  
Prompt and efficient service.

## CAN YOU MAKE CASTINGS?

*if so, Let Our Readers Know it through an advertisement in the*

## Southern Shops Seeking Contract Work

*Department of the*

## MANUFACTURERS RECORD

The Columbus Iron Works Co., Columbus, Ga., wrote us a short time ago, as follows:

*"We are pleased to advise that since running our ad. in 'Southern Shops Seeking Contract Work' department we have all the work we can take care of for the next six months. It certainly pays to advertise."*

If your plant is not running at full capacity, an advertisement in this department of the MANUFACTURERS RECORD outlining your special facilities will put you in line of securing some of the profitable work which foundries and machine shops in other parts of the country are compelled to sublet because of the greatly overcrowded condition now prevailing.

In these times it is a vital economy of war to keep your plant operating on a 100% capacity schedule, and an advertisement in the MANUFACTURERS RECORD may bridge the gap between your present production and your possible production. Try it.

# PIPE

ALL SIZES

SECOND HAND

5,000 ft. 8 in. Pipe      25,000 ft. 2 in. Pipe  
 5,000 ft. 6 in. Pipe      20,000 ft. 1½ in. Pipe  
 20,000 ft. 2½ in. Pipe      25,000 ft. 1¼ in. Pipe

IMMEDIATE DELIVERY

## JAMES F. GRIFFITH

416-24 Moyer St. Philadelphia, Pa.

MENTION MANUFACTURERS RECORD WHEN YOU WRITE

FOR SALE

# PIPE

## Second-Hand

All Sizes, 1" to 24"

Furnished with new threads and couplings, suitable for every practical purpose.

Also large assortment of Contractors' Equipment, Hoisting Engines, Boilers, Concrete Mixers, etc.; all thoroughly overhauled.

**Marine Metal & Supply Co.**  
 167 South St. NEW YORK

PIPE ALL SIZES Bargain Prices.  
 and New; IMMEDIATE DELIVERIES

8,000' of 12" pipe.  
 10,000' of 8" pipe.  
 10,000' of 6" pipe.  
 10,000' of 4" pipe.  
 15,000' of 3" pipe.  
 50,000' of 2" pipe.  
 50,000' of 1½" pipe.  
 100,000' of 1¼" pipe.  
 100,000' of 1" pipe.  
 Also, a large stock of 16", 18" and 20" pipe.

**Pipe & Contractors Supply Co.**  
 3 Dover Street NEW YORK

## Wrought Steel Pipe FOR SALE

10,000 feet Wrought Steel Pipe, used only sixty days.

**L. G. EVERIST, Inc.**  
 SIOUX CITY, IOWA

# IRON AND STEEL PIPE      WIRE AND MANILA ROPE      MALLEABLE AND CAST FITTINGS

Large stock of good sound SECOND HAND pipe in long straight lengths. No rust pits or eaten places; couplings and threads perfect

Largest stock of NEW pipe in the Middle West

OHIO PIPE CO., Works and Yards, FINDLAY, OHIO

FOR SALE

## Second-Hand Pipe

Cut and threaded to any desired length. Pipe for steam, water, irrigation or other purpose. Write for prices. We can positively save you money. Your orders solicited. We are always in the market for scrap iron, metals, etc.

B. CASSELL &amp; COMPANY

Chattanooga

Tenn.

# WROUGHT IRON PIPE

Thoroughly overhauled, with new threads and couplings. Guaranteed to give entire satisfaction. Pipe cut to sketch. It will pay to correspond with us.

**Albert & Davidson, Inc.**  
 Oakland and Kent Sts.  
 Brooklyn, N. Y.

USED PUMP FOR SALE

One 9x12 Platt Double-Acting Triplex Pump, steel rods, brass-lined water cylinders, arranged for gas engine or belt drives. Parts available for placing water box 23 feet below power head, for dug-well operation; capacity, 19.7 gallons per revolution piston displacement.

**MERKLE MACHINERY COMPANY**  
 508 Interstate Bldg. Kansas City, Mo.

FOR SALE

## Second-Hand Equipment

5-150 H. P. Boilers (high pressure).  
 2-150 H. P. Bessemer Gas Engines.  
 1-465 H. P. Bessemer Gas Engine.  
 2-110 H. P. Bessemer Gas Engines.  
 1-25 H. P. Bessemer Gas Engine.  
 2-888-ft. Ingersoll-Rand Compressors (belt driven).  
 200 tons of 8-lb. "T" Rails.  
 75,000 ft. second-hand Pipe (all sizes).

**BANKARD LUMBER & MACHINERY CO.**  
 JOPLIN, MO.

ENGINES FOR SALE

Two Single-Cylinder Ellis Corliss Steam Engines; size of cylinder, 25x42; speed, 65 H. P. M. Both Engines overhauled and in good condition.

**Burlington Grain Elevator Co.**  
 206 Merchants Exchange, ST. LOUIS, MO.

FOR SALE

## ONE FLY WHEEL

Eight feet in diameter, 21-in. face, good heavy rim; size of bore, 5 in.

Price \$265.00  
**THE CYPRESS LUMBER CO.**  
 Apa achicola, Fla.

# 1876 THE MACHINERY HOUSE OF THE EAST FRANK TOOMEY, Inc. 1918

## LATHES

10"x14" Climax.  
 14"x6" New Carroll Jamieson Quick Change.  
 14"x8" New Carroll Jamieson Quick Change.  
 4-15"x6" New Sidney D. B. G. Quick Change, swing 17".  
 7-17"x8" New National Quick Change.  
 17"x8" New Sidney D. B. G. Quick Change, swing 19".  
 18"x8" Rahn Mayer.  
 18"x8" Flather.  
 18"x8" Schumaker Boye.  
 18"x8" Reed.  
 24"x20" Reed.  
 24"x24" Fay & Scott.  
 24"x48"x24" McCabe Double Spindle.

## TURRET LATHES

7"x24" Jones & Lamson Geared Head.  
 2-24" Davis Boring and Chucking Lathes.  
 1½" S. & K. Back Geared Wire Feed.  
 2-No. 1 Bardon & Oliver Hand Screw Machines.

## HORIZONTAL BORING MILLS

4" Bar Niles Knee Type.  
 2½" Bar Warney & Swasey Knee Type.

## MILLERS

No. 2 Kempsmith New Universal, with vertical attachment.  
 No. 1½ Cincinnati Universal.  
 No. 1 U. S. New Hand Miller.

## SHAPERS

4-14" New Steptoe.  
 1-14" Steptoe.  
 6-16" New Steptoe B. G.  
 2-24" New Steptoe B. G.  
 16" Bement Traveling Head.

## GRINDERS

10"x30" Brown & Sharpe.  
 10"x24" Iroquois.  
 10"x20" Bath.

No. 1 New Fraser Universal.  
 No. 1 New Grand Rapid Universal Reamer and Cutter.  
 No. 2 Grand Rapid Universal Reamer and Cutter.  
 No. 100 New Wells Universal Reamer and Cutter.  
 No. 3 B. & S. Universal Reamer and Cutter.

## RADIAL DRILLS

42" Niles Plain Cone Drive.  
 30" Universal Plain Cone Drive.  
 42" New Canedy-Otto.

## DRILLS

36" New Superior Sliding Head.  
 32" New Superior Sliding Head.  
 30" G. & E. Sliding Head.  
 2-28" New Superior Sliding Head.  
 2-25" New Superior Sliding Head.  
 25" New Superior Sliding Head, with tapping attachment.  
 24" New Superior Stationary Head.  
 21" New Superior Stationary Head.

20" New Superior Stationary Head.  
 20" New Champion Stationary Head.

## HAMMERS

350-lb. Sellers Single Frame Steam.  
 250-lb. New Little Giant Belt.  
 4-100-lb. New Little Giant Belt.  
 3-50-lb. New Little Giant Belt.  
 4-25-lb. New Little Giant Belt.

## PLANERS

36"x36"x8" Gray, two heads.  
 30"x30"x10" Pitchburg, one head.  
 24"x24"x8" Gray, one head.

## NUT TAPPERS

1½" to 2" Six-Spindle National.  
 1½" to 3" Five-Spindle National.  
 3/16" to 3/2" Five-Spindle National.

## SLOTTERS

10" Newton Power Feed to Rotary Table.

## "STEAM AND ELECTRICAL EQUIPMENT"

### WATER TUBE BOILERS

1-250 H. P. Babcock & Wilcox Water-Tube Boiler, 150 pounds steam working pressure.

### PORTABLE BOILERS

1-40 H. P. Marine Type Portable Boiler, 100 pounds steam working pressure.  
 1-20 H. P. Erie City Iron Works Portable Return Tubular Boiler, 100 pounds steam pressure.

### STEAM TURBINE A. C. SET

1-110 H. P. De Laval Steam Turbine, direct connected to two 37½ K. V. A. General Electric, 2300-volt, 60-cycle, 3-phase Alternators, with direct-connected exciter.

### A. C. OIL ENGINE UNIT

1-375 K. W. Fort Wayne 3-phase, 60-cycle, 2300-volt Alternator, direct connected to one pair of Diesel Vertical Oil Engines.

### OIL ENGINES

40 H. P. Metz & Weiss Horizontal Oil Engine.  
 18 H. P. Metz & Weiss Horizontal Oil Engine.

### MOTORS

Large stock of A. C. and D. C. Motors, new and used, from ½ to 250 H. P., in stock for immediate delivery.

### STEAM TURBINE A. C. SET

1-110 H. P. De Laval Steam Turbine, direct connected to two 37½ K. V. A. General Electric 2300-volt, 60-cycle, 3-phase Alternators, with direct-connected exciter.

### A. C. OIL ENGINE UNIT

1-375 K. W. Fort Wayne 3-phase, 60-cycle, 2300-volt Alternator, direct connected to one pair of Diesel Vertical Oil Engines.

### DIRECT-CONNECTED UNIT, 220-250 VOLTS

100 K. W. Crocker-Wheeler 250-volt, 8-pole Compound-wound Generator, direct connected to a 14"x21" Hamilton Horizontal Corliss Engine, 150 R. P. M.

### DIRECT-CONNECTED UNIT, 110-125 VOLTS

100 K. W. General Electric Compound-wound Generator, direct connected to a Ball & Wood Horizontal Compound Automatic Engine, 250 R. P. M.  
 50 K. W. Bullock Compound-wound Generator, direct connected to an Erie City Iron Works Horizontal Automatic Engine, 250 R. P. M.

127-131 North Third St.

PHILADELPHIA, PA.



# For Sale

- 3-72" x 16' Horizontal Boilers.  
 1-40-H. P. Donegan & Swift Upright Steam Engine.  
 Wood Wheel Making Machinery. (Send for list.)  
 1-600-H. P. Hoppes Feed Water Heater.  
 1-10 x 12 Worthington Triplex Pump.

**The B. F. Goodrich Co.**  
 Dept. 37 AKRON, O.

## FOR SALE

**Skinner Overhead Ten-Acre Irrigation Plant**  
**\$1,800.00 on Farm**

ENGINE—Fairbanks-Morse, type N. B., 15 horse-power, rev. p. m. 250; good condition; kerosene consumption; belt shift attachment and best.

PUMP—Fairbanks-Morse Horizontal Centrifugal, 3" B. H. O. B.; good condition.

PIPE—About 750 feet 1½" and 1" Galvanized Pipe; about 900 feet 4" and 3" Black Feed Main.

GENERAL—Turning Apparatus, for operating overhead pipe, needing some repairs; about 478 Cast Iron Pipe Saddles, Pipe Connections, Fittings, etc.

**THE DOUBLE-CRESCENT HOG FARM**  
 FELLSMERE, FLORIDA

## Complete 3-Ton Refrigerating Outfit

Used short time in a Military Camp. Fine condition, including 5 H. P. Electric Motor.

1-Valter 7-ton Ice Plant, complete with motor. Used only one season.  
 1-De La Vergne 15-ton Ice Machine. Used four seasons.

**ALBERT HERMAN**  
 201 Baldwin Ave. JERSEY CITY, N. J.

## FOR SALE

Two 350 and one 275 H. P. Edgemoor and Heine Boilers; four 361 H. P. B. & W. Boilers, complete, 200 lbs. steam; two 250 and one 300 H. P. Stirling Class F Boilers, almost new, with new tubes, complete; two B. & W. Boilers, 325 H. P. each, with stokers and hand-fired; one 78" Stack, 150 ft. long, heavy metal; two 100 H. P. Horizontal Return Tubular Boilers, 125 lbs. steam; 7x10 Saddle-Tank Locomotives, 24" and 30" gauge; 12x14 Horizontal Automatic C. C. Engine; two carloads line 3, 4, 6 and 8" wrl. Pipe; 15,000 ft. 4" wrl. Pipe; 1500 4" Boiler Tubes, 16 and 18 ft. long; lot 6" Cast-Iron B. & S. Pipe; 10,000 ft. ¾ Galvanized and Bright NEW Wire Ropes, long and short lengths; 60,000 ft. 2½, 3½, 4½, 5½ and 1" Flow Steel Wire Ropes, long and short lengths; two reels 1½ Flow Steel Wire Ropes, 5000 ft. long each; 60 reels 1" to 2½" diameter Wire Ropes, different lengths, fine condition; two 250 H. P. Locomotive-Type Boilers, 150 lbs. steam, all complete; four 8" Automatic Steam Valves; 1000 H. P. NEW Closed Heater.

**Easton Machinery Co.**  
 Drake Bldg. Easton, Pa.

## Corliss Engines FOR SALE

Slightly used, but in first class condition.

1-100 H. P. Hamilton Corliss Engine.

1-150 H. P. Hamilton Corliss Engine.

Available for immediate delivery.

**The Hamilton Machine Tool Co.**  
 HAMILTON, OHIO

## PUMP FOR SALE

One 8x10 Platt Double-Acting Triplex Pump, cold water valves, iron water pistons, solid brass removable cylinders, brass rods, brass-bushed rod glands and boxes, and rawhide pinion; capacity, 570 G. P. M.; water pressure, 120 pounds; motor base and inter-gears, and direct connected to one 50 H. P. 200 R. P. M. 200-volt 3-phase 60-cycle Fort Wayne Alternating Current Motor.

**MERKLE MACHINERY COMPANY**  
 508 Interstate Bldg. Kansas City, Mo.

If you wish to keep posted on the progress of the South, read the **MANUFACTURERS RECORD**  
 Price \$6.50 a year, six months for \$3.50.

## EQUIPMENT FOR SALE

- 3 72"x18" Horizontal Return Tubular Boilers; butt-strap construction.  
 3 72"x18" Horizontal Return Tubular Boilers; standard construction.  
 1 72"x16" Horizontal Return Tubular Boiler; standard construction.  
 3 66"x16" Horizontal Return Tubular Boilers; standard construction.  
 1 17"x21" Four-Valve Atlas Automatic Engine.  
 1 14"x31" Hoffman-Billings Corliss Engine; RH girder-frame type.  
 1 22"x42" Vilter RH Corliss Engine; girder-frame type.  
 1 30,000-gal. Steel Tank mounted on an 80" steel tower.  
 1 450-ton-capacity Steel Storage Bin.  
 1 1½-yd. Vulcan Steam Shovel mounted on traction wheels.  
 1 No. 6 Thew Full Revolving Steam Shovel; 2½-yd. dipper; equipped with shipper shaft; mounted on traction wheels.  
 3 No. 7 Chambers Brick Machines.  
 1 Chambers Disintegrator.  
 3 Chambers Pug Mills.  
 1 7' Dry Pan.

WE BUY AND SELL MACHINERY OF ALL KINDS.

Let us know your wants.

**MAY & TURNER CO.**

1503 Healey Bldg.

ATLANTA

GEORGIA

## HORIZONTAL RETURN TUBULAR BOILERS

2-72"x18" "Penna. Iron Works"—bare—with-out fixtures.  
 1-66"x16" "Catesville," butt strapped, 125 lbs. pressure, full front fixtures.

**L. F. SEYFERT'S SONS, Inc**  
 437 N. 3rd Street PHILADELPHIA

## BOILER AND PUMP

FOR SALE—No. 1 Type "M" Vertical Water Tube Boiler, complete; 165 horse-power, 150 lbs. working pressure. In good condition, as reported by inspector.  
 Worthington Pump, type "B," size 11x7½x12, capacity 500 gallons per minute.

**CASWELL TRAINING SCHOOL**  
 KINSTON, N. C.

## Boiler and Pumps

FOR SALE—IMMEDIATE DELIVERY.

1-78"x16" Return Tubular Boiler, with 160 new 3" charcoal iron tubes; good for 125 lbs. pressure and equipped with Murphy Automatic Smokeless Stoker.  
 1-7x4½x8 Snow Duplex Boiler Feed Pump.  
 1-6x4x6 Buffalo Duplex Boiler Feed Pump.  
 1-5x4x3½x5 Snow Duplex Boiler Feed Pump.  
 All pumps in first-class condition.

**DUNKIRK LAUNDRY CO.**

DUNKIRK, N. Y.

(2) 150 H. P. Gery Water Tube

## BOILERS

Insured 150 lbs. with Roney Stokers, Breeching and Stack.

**The Herfurth Engine Co., Inc.**

ALEXANDRIA, VA.

## OIL ENGINE

For Sale—Arkansas point. One 50 H. P. type "Y," vertical Fairbanks-Morse Oil Engine. Two years' service. Discontinued account of transmission line.

**Commonwealth Public Service Co.**

311 Barnes Building, MUSKOGEE, OKLA.

## FOR SALE

One 12"x36" Green Engine in A-1 condition for immediate shipment.

**Cocker Machine & Foundry Co.**  
 GASTONIA, N. C.

## FOR SALE Machine Shop Tools

1-Bertsch 12" Black Sheet Metal Shear.  
 1-Lenox Circular Disk Shear.  
 1-Queen City Punch and Shear (double).  
 1-National (2-head) Bolt and Pipe Machine.  
 1-Duss and Kemp 10-ft. Sheet Metal Brake.  
 1-Queen City Type D 36" Punch and Shear.  
 1-Q. M. S. Circular Cold Saw.  
 1-Dupont Belt Hammer.  
 1-Tane Tool Co. No. 120 Steam Hammer.  
 1-J. T. Ryerson & Son Combination Punch and Shear, 30" gap.  
 1-Fairbanks Type E Hammer.  
 1-36" Drill.  
 1-12" Southend Lather.  
 1-26" American Radial Drill.  
 1-National 20" x 12 Lathe.  
 1-21" American Shaper.  
 Air Drills, Air Compressors, Electric Drills, Twist Drills and Various Other Tools. If interested, send for full list.

**MACHINERY & SUPPLY CO.**

Greensboro, N. C.

We own and offer for prompt shipment

## BOILERS

- 3-300 H. P. Stirling Water Tube Boilers, all fittings and fixtures, 8 years old, F. & C. inspection, 150 lbs.  
 1-72x18, 150 H. P. H. R. T. Boiler, all fittings and fixtures, 110 lbs.  
 1-40 H. P. Ames locomotive-type Boiler, all fittings and fixtures, 100 lbs.

## HEATER

- 1-750 H. P. Erie City Closed Type, brass tubes, all necessary fittings

## STACK

- 1-54"x80' Guyed Steel Stack, complete with guy wires and cast-iron base.

**The Hawkins-Hamilton Co., Inc.**  
 Richmond, Va.

## BOILERS

For Quick Shipment

- 3-250 H. P. Wickes Vertical Water-Tube Boilers, 150 lb. pressure  
 1-300 H. P. Wickes Vertical Water-Tube Boiler, 150 lb. "  
 2-425 H. P. B. & W. Boilers, 150 lb. "  
 6-250 H. P. B. & W. Boilers, 150 lb. "  
 1-250 H. P. B. & W. Boiler, 125 lb. "  
 2-210 H. P. B. & W. Boilers, 100 lb. "  
 2-500 H. P. Keeler Boilers, 100 lb. "  
 1-400 H. P. Stirling Boiler, 150 lb. "  
 1-261 H. P. Stirling Boiler, 150 lb. "  
 2-150 H. P. Stirling Boilers, 150 lb. "  
 1-425 H. P. Heine Boiler, 100 lb. "  
 3-72"x18" Tubular Boilers, 125 lb. "  
 1-72"x16" Tubular Boiler, 125 lb. "  
 2-66"x16" Tubular Boilers, 100 lb. "  
 5-66"x16" Tubular Boilers, 125 lb. "  
 2-54"x14" Tubular Boilers, 100 lb. "  
 And other makes and sizes.

## STEEL SMOKE STACKS

- 1-14x36 Corliss Engine.  
 1-6-ton Whiting Cupola and Blower.  
 1800 Gasoline Engines, New.

**J. F. DAVIS**

1408 Harris Trust Building CHICAGO, ILL.

## MARINE BOILER FOR SALE

75 Horse-power Scotch Marine Boiler, Hartford inspection, 120 lbs. pressure. Price, \$1250.

**Strasburg Steam Flouring Mills**  
 STRASBURG, VA.

## BOILERS FOR SALE

- 2-55 H. P. Boilers, H. R. T., 64"x12", 100 lbs. steam.  
 2-150 H. P. Boilers, H. R. T., 78"x18", 100 lbs. steam.  
 2-125 H. P. Boilers, H. R. T., 72"x18", 100 lbs. steam.  
 1-Manning Boiler, 150 H. P., 125 lbs., complete with stack.  
 1-Stack, 24" dia. x 60' long, self-supporting.

**JOHN M. GREENE, 261 Drexel Bldg., Philadelphia, Pa.**

## Heating Boilers

1-54"x16" Fire Box Heating Boiler.  
 1-72"x16" Kewanee Fire Box Heating Boiler. Fine condition. Practically as good as new. Immediate delivery.

**PFANNMUELLER ENGINEERING CO.**

1733 First National Bank Bldg. Chicago

## BARGAINS

- 1-150 H. P. Return Tubular Boiler complete.  
 1-1280 ft. Sullivan WB-2 Air Compressor.  
 1-11x26 Hamilton Corliss Engine.  
 1-10x14 Davenport 36" Saddle Tank Locomotive.

Send us your inquiries.

**HODGSON MACHINERY CO.**

Knoxville, Tenn.

Write or Wire

**H. J. GEBHARDT CO.**

1421 Fisher Building, Chicago, Ill.

FOR NEW OR USED STEAM OR ELECTRIC

**Power Plant Machinery**

Boilers, Pumps, Engines, Generators, etc.

NEW Water Tube Boilers 45 to 60 days delivery

## Heat Treating Furnaces FOR SALE

Two No. 25 Stewart, Oven-Type, Heat-Treating, Oil Burning Furnaces; excellent condition. Price \$150 each, f. o. b. La Crosse, Wisconsin.

**LA CROSSE TRACTOR CO., LA CROSSE, WIS.**

## FOR SALE

1-Tank 6'6" dia., 108'6" long, steel dish head, with cast-iron hinged doors, 4" plate, two standard domes; condition A; estimated weight, 45 tons. Good for 20 lbs. pressure.

**INDUSTRIAL SERVICE COMPANY**

Lincoln, N. J.

## BARGAINS

### ENGINES

- 150 H. P. 16x15 McEwen Automatic, with extra head.  
 200 H. P. Skinner Automatic.

### BOILERS

- 4-72x18 Lapped Joint, Erie City Boilers.  
 4-66x16 Lapped Joint, Union Iron Works.  
 3-72x18 Lapped Joint, Union Iron Works.  
 4-72x18 Butt Strapped, Erie City Boilers.

### ENGINE GENERATOR SETS

- 100 K. W. Westinghouse, 250 volts, direct connected to twin cylinder vertical Westinghouse Engine.  
 150 K. W. Jeffrey, 250 volts, belted to 18x19 McEwen Engine.  
 250 K. W. Ridgway, 250 volts, direct connected to 28x24 Ridgway Automatic Engine.  
 150 K. W. Western Electric, 250 volts, direct connected to 18x36 Monarch Corliss Engine.  
 60 K. W. General Electric, 250 volts, belted to one 12x12 Erie City Engine.  
 50 K. W. Fairbanks-Morse, 250 volts, direct connected to 85 H. P., 3 cylinder vertical Fairbanks-Morse Gas Engine.  
 30 K. W. Westinghouse, 250 volts, direct connected to one 50 H. P., 2 cylinder Westinghouse Gas Engine.  
 125 K. V. A., 3-phase, 60-cycle, 2200-volt Fairbanks-Morse, belted to 150 H. P. 3 cylinder Fairbanks-Morse Oil Engine.  
 55 K. W. Westinghouse, 115 volts, direct connected to one 85 H. P. 2 cylinder Marinette Gas Engine.  
 10 K. W. Lincoln, 125 volt, belted to 20 H. P. St. Marys Gas Engine.

### HOIST

- 25 H. P. Byers, 3-drum Steam Hoist; extra drum for operating bull wheel, 80' jin pole, 60' boom, 1000' cable, ¾-yard clamshell bucket. No boiler. Never used.

### SHOVEL

- 1—Class 80 Atlantic Steam Shovel, 3½-yard bucket, complete.

**THE MOYERS-BENNETT CO.**  
 SCHMULBACH BLDG. WHEELING W. VA.

## BOILERS

- 4-450 H. P. Sterling Water Tube Boilers, 175 lbs.  
 3-400 H. P. Altman & Taylor Water Tube Boilers, 150 lbs.  
 2-400 H. P. B. & W. Water Tube Boilers, 165 lbs.

## LOCOMOTIVE TYPE BOILERS

- 1-40 H. P.; 1-65 H. P.; 1-125 H. P.; 1-150 H. P.

## LOCOMOTIVE CRANES

- 1-20-Ton Industrial, 48 ft Boom.  
 1-20-Ton Orton & Steinbrenner.

HOISTING ENGINES, DERRICKS, SHOVELS,  
DUMP CARS, CONTRACTORS' EQUIPMENT

WE PURCHASE COMPLETE PLANTS—  
 What have you for sale?

**Sun Power Equipment Company**  
 COMMERCIAL TRUST BLDG., PHILADELPHIA, PA.

## WHEELAND CIRCULAR SAW MILL

Capacity 20,000 feet per day of 10 hours

All machinery complete with belting, saws, ample power, blacksmith tools, lumber carts, etc. Write for price and list of machinery and blue print of mill.

**H. P. WYMAN LUMBER COMPANY, Inc.**

BRISTOL

VIRGINIA

## HIGH SPEED

## TEAM HOISTING ENGINE

Double-cylinder, single-drum, high-speed hoisting engine; built especially for handling material elevators, etc., but suitable for any kind of hoisting or haulage where high speed is desired.  
 It will hoist 1500 pounds at the rate of 400 ft. a minute.  
 Drum is inches in diameter and 23 1/2 inches between flanges, mounted on the crankshaft, and operated by a cone friction. Cylinder size 12x10; has a 35x55 boiler and ample water surface.  
 Write on request—and it is a real bargain at immediate shipment.

**AMERICAN HOIST & DERRICK CO.**  
 ST. PAUL, MINN.

## WATER TUBE BOILERS

- 1-250 H. P. Heine.  
 1-300 H. P. Erie City.  
 2-150 H. P. Babcock & Wilcox.  
 2-100 H. P. Cross-drum Babcock & Wilcox.  
 1-200 H. P. Heine.  
 1-150 H. P. Heine.  
 1-60 H. P. Vertical Butt-strapped High-pressure Tubular.

## TANKS

- 4-60"x20", made of boiler plate.  
 2-Open-top Tanks, 7' wide, 24' long, 30" deep.

## AIR COMPRESSORS

- 1-16x16x18 Ingersoll-Sargent.  
 1-12x12x12 Ingersoll-Sargent.  
 1-700 H. P. Cochrane Cast-shell Feed-water Heater.

**NORTON MACHINERY COMPANY**  
 CINCINNATI, OHIO

## FOR SALE

- 1-600 H. P., 150 lbs. pressure, Internally-fired Boiler, with 3 Jones Underfeed Mechanical Stokers.  
 1-No. 8 Austin Gyrotory Crusher; fine shape.  
 1-6"x16" Ball or Tube Mill; in fine shape.  
 1-6"x9" Rotary Direct-fired Dryer.  
 1-90 H. P. Titusville Locomotive Type Boiler.  
 1-13"x15" D. C. double-friction drum Mine Hoist.  
 1-7"x12" Porter, 8-ton, 24" gauge Locomotive.  
 1-10"x16" Porter 36" gauge Locomotive.  
 1-9"x10" Lidgerwood D. C., D. F. D. Hoist, with Boiler.  
 2-1200 G. P. M., motor-driven Centrifugal Pumps.

**CHAS. T. LEHMAN, Birmingham, Ala.**

## Equipment For Sale

Nos. 4 and 5 Champion Jaw Crushers, mounted or unmounted. Also other quarry equipment.

**RALEIGH GRANITE COMPANY**  
 NORFOLK, VA. RALEIGH, N. C.

## NEW BOILER TUBES

Immediate Shipment from Stock

100—4" x 14 ft

At Special Price

Other Sizes in Stock

**HYDE & COMPANY, Inc. PITTSBURGH**

## LARGE CORLISS ENGINE

## FOR SALE

Cylinder, 24x42; fly-wheel, 16 feet diameter; about 200 horse-power. Excellent condition.

**SCHADEWALD MILLS**

3rd and Huntingdon Sts. Philadelphia, Pa.

REBUILT MACHINERY  
ALL IN STOCK

BOILERS: 2-72x18; 2-72x16; 2-66x16; 1-60x16; 1-54x14; 2-48x16; 2-48x14.

BOILER TUBES: 20,000 feet of 4-in.; 10,000 feet of 3 1/2-in.; 5000 feet of 3-in.

ENGINES: 14x16 Buckeye; 14x21 Lane & Bodley; 14x18 Chandler & Taylor; 12x30 Lane & Bodley Corliss; 12x18 Atlas; 11x13 Russell; 10x14 Chandler & Taylor; 9x12 new Nagle; 10x12 Erie; 9x14 Allfree; 7 1/2 x 14 Brownell.

MOTOR GENERATOR SET: 1-100 K. W. Morgan-Gardner, 250-volt, D. C. Generator, direct connected to a 150 K. V. A. General Electric 3-phase, 60-cycle, 2300-volt, 600 R. P. M. synchronous motor, with switchboards, instruments, etc.

GENERATORS—60-CYCLE: 175 K. W. Westinghouse, 3-phase, 2300-volt at 900 R. P. M.; 150 K. W. G. E., 3-phase, 230-volt at 600 R. P. M.; 85 K. W. Allis-Chalmers, single phase, 2300-volt at 900 R. P. M.; 90 K. V. A. Electric Machinery Company 3-phase, 2300-volt at 1200 R. P. M.; 75 K. W. Fairbanks-Morse, 240-volt, 900 R. P. M.

MOTORS—3-PHASE, 60-CYCLE: 150 H. P. new General Electric, 440-volt, 720 R. P. M.; 100 H. P. new General Electric, 440-volt, 720 R. P. M.; 100 H. P. new General Electric, 440-volt, 900 R. P. M.; 75 H. P. new General Electric, 230-volt, 900 R. P. M.; 50 H. P. new Allis-Chalmers, 440-volt, 900 R. P. M. (slip ring); 40, 30, 2-25 H. P., all new General Electric, 230-volt, 1200 R. P. M. Also other sizes.

MOTORS—D. C., 250 VOLTS: 100 H. P. Allis-Chalmers at 600 R. P. M.; 55 H. P. General Electric at 900 R. P. M.; 30 H. P. Northern at 600 R. P. M.; 2-35 H. P. Fischer at 500 R. P. M.; 1-30 H. P. Crocker-Wheeler at 750 R. P. M.; 15 H. P. Phoenix at 1750 R. P. M.; 10 H. P. Jants & Leist at 900 R. P. M.; 3 H. P. at 1350 R. P. M., direct connected to iron-frame sawing saw.

## POWER PLANT MACHINERY AND ACCESSORIES

Send us your requirements

**THE RANDLE MACHINERY CO.**

1734 Powers St.

Cincinnati, Ohio

Manufacturers Record, the Medium for Machinery Advertisements.

## Boston Iron and Metal Co.

Buyers of Scrap Iron and Metals

Complete Plants Purchased

BALTIMORE

MARYLAND

## FOR

## WIN THE WAR SERVICE

AND IMMEDIATE DELIVERY. WE OFFER A No. 1 APPARATUS  
 PARTIAL LIST AS FOLLOWS

## BOILERS

- 1-1400 H. P. Complete Boiler Plant, consisting of:  
 4-350 H. P. Stirling, Class N, No. 16, 190 lbs. steam pressure, 150 degrees superheat Boilers, complete, with all piping, valves, breeching, heaters, pumps, etc.  
 2-400 H. P. A. & T. B. & W. Steel Header, 175-lb., re-erection, triple riveted butt joint, with Green chain-grate stokers.  
 1-500 H. P. B. & W. Steel Header, 185 lbs. Allow., Butt Joint, Double Riveted, with Chain Grate Stokers.  
 1-557 H. P. Stirling Lap Seam Drum, 150-lb. allow.; perfect condition, hand fired.  
 7-72-in. x 18-ft. triple riv., butt joint, 150-lb. allow., hand fired; stacks and all fittings.  
 1-250 H. P. Steel Header A. & T. B. & W. type Boiler, 175 lbs. Allow., Triple Riveted, Butt Joint Drums, Hand Fired.  
 2-250 H. P. Heine, 150 lbs. allowance, Hand-Fired Boilers; first-class condition.

## 60-CYCLE UNITS

- 2-600 K. W. General Electric, 60-cycle, 3-phase, 2200-volt, R. F., Alt. dir. con. to H. D. cross-compound Corliss engine.

## 25-CYCLE UNITS

- 2-300 K. W. Westinghouse, 25-cy., 3-ph., 440-v., R. F. Alternator, dir. con. to cross-comp. Allis-Chalmers, heavy-duty, double-ported, double-eccentric engines.  
 1-350 K. W. Westinghouse, 25-cy., 3-ph., 6600-v., R. F. Alternator, dir. con. to heavy-duty Ball automatic engine.  
 3-1000 K. V. A. Westinghouse, 25-cy., 3-ph., 440-v. Alternator, with cross-compound, heavy-duty Corliss engines.

**PAUL STEWART & COMPANY**  
 CINCINNATI, OHIO

## DIRECT CURRENT UNITS

- 1-1600 K. W. General Electric, 250-v., D. C. Generator, direct connected to heavy-duty Cross-Compound Corliss Engine.

## TURBINES

- 1-1000 K. W. (old rated actual capacity approximately 1500-1800 K. W.) Westinghouse Horizontal Condensing Turbo Alternator Unit, 60-cy., 3-ph., 2300-4400-v., 1800 R. P. M., complete, with surface condensers, piping, etc., to make complete installation.  
 1-9300 K. V. A. Westinghouse-Parsons Condensing Turbo Alternator, 80 per cent. P. F., 60-cy., 3-ph., 2300-v., 1200 R. P. M., complete, with condenser.  
 1-5000 K. W. Allis-Chalmers (New) Turbo Alternator, without condenser, 80 per cent. P. F., 60-cy., 3-ph., 2300-v.  
 1-1500 K. W. Westinghouse-Parsons Condensing Turbo Alternator (Old Rated), approximately 2500 K. W. capacity, 60-cy., 2-ph., 2400-4900-v., with Wheeler condenser.

## FREQUENCY CHANGER SET

- 1-1000 K. W. Westinghouse Frequency Changer Set, 60-cy., 3-ph., 2300-v., to 30-cy., 6600-v., on sub-base and solid shaft, with dir. con. exciter.

## ROTARIES

- 1-250 K. W. Westinghouse, 25-cy., 3-ph., Rotary, 370-v., A. C.; 550-v. D. C., with 3-100 K. V. A. transformers, 6600-v. primary panel, etc.  
 1-500 K. W. G. E., 60-cy., 3-ph., 440-v., A. C.; 600-v. D. C., with transformers 13,200-v. primary, panel, etc.

## MOTORS

- 1-1200 H. P. General Electric, 25-cy., 3-ph., 2200-v., 250 R. P. M. Induction Motor, complete, with shaft extension both ends.  
 1-250 H. P. Burke, 60-cy., 2 or 3-ph., 2200-v. Synchronous Slip-Ring Motor, with panel, coupled to 24-in. Platt twin rotating pump, Twenty Million G. F. D., 45-ft. head.



## Selections from Our Stock

## 3-phase, 60-cycle Motors

Qu. H.P.	Make	Volts	Type	Speed
1 15	Westinghouse	220	CS	1165
1 15	Westingh. NEW	220	CS	890
1 20	Westingh. NEW	220	CS	890
2 20	Westinghouse	220	CS	1160
1 20	Gen. Elec. Special	220	M	900
42 20	Foot-no starter	220	KBV	1200
1 20	Fairbanks-Morse	220/440	KBV	1200
1 20	Gen. Elec. Slip ring, intermittent duty, no controller	220	IM	900
	Controller with grids for above.			
3 25	Westingh. NEW	220	CS	865
9 25	Wagner	220/440	BP	1120
2 30	Wagner, NEW	220		850
1 35	Triumph	220/440		900
1 40	Fairbanks-Morse	220		900
1 50	Triumph	220		720
1 50	Allis-Chalmers	220		1750
1 50	Westingh. NEW	440	CS	860
1 75	Westingh. NEW	440	CS	720
1 100	Allis-Chalmers	550		690
1 100	General Electric	550	K	600
1 100	Gen. Elec. NEW	550	M	600
1 150	Gen. Elec. NEW	220	M	590

## GEORGE SACHSENMAIER CO.

Office and Salesrooms, 141-43-45 N. Third St.  
Warehouses and Shop, 928-30-32 N. Third St.  
PHILADELPHIA  
All kinds Motors and Generators in stock.

## MOTOR AND GASOLINE ENGINE FOR SALE

1-15 H. P. Fairbanks-Morse, 2-phase, 60-cycle, speed 1200 R. P. M., Motor, with starter.  
1-Foose Special Electric Gasoline Engine, 22 H. P.  
Lawrence Co. Water Light & Cold Storage Co.  
Aurora, Mo.

## FOR SALE

1-20 Ton 4-Motor P. & H Crane, 34' span.

## IMMEDIATE DELIVERY

## SCULLY-JONES &amp; COMPANY

Railway Exchange Bldg. Chicago, Ill.

## DIRECT CONNECTED SETS

1-100 K. W. "Bullock" D. C. Generator, 220 volts, D. C. to "Allis-Chalmers" Heavy-Duty Corliss Engine.  
1-75 K. W. "General Electric" D. C. Generator, 220 volts, D. C. to "Ames" Horizontal Automatic Engine.  
1-25 K. W. "Commercial Electric Co." D. C. Generator, 125 volts, D. C. to "Chandler & Taylor" Horizontal Automatic Engine.

## L. F. SEYFERT'S SONS, Inc.

437 N. Third Street PHILADELPHIA

## FOR SALE

One 150 K. W., 60-cycle, 3-phase, 2300-volt Generator, direct connected to heavy-duty Corliss engine; one 115 K. W. Bullock Generator, 60-cycle, 3-phase, 2200-volt; one 15x42 Monarch Corliss Engine, rolling-mill type; one 50 K. W. Belted Unit, 60-cycle, 3-phase, 2200-volt; two 75 K. W. D. C. Generators, 220-volt, direct connected to tandem compound Corliss engines. Fine condition, prompt shipment. Large stock Pumps, Heaters, Boilers and Motors.

Harlan & Harlan Machine Works  
KANSAS CITY, MISSOURI

## SOME BARGAINS

10,000-gallon Tank and Steel Structure Tower.  
1-Dayton Centrifugal Pump, 5" suction and 4" discharge, complete with accessories.  
1-Worthington Centrifugal Pump, 6" intake and 8" outlet, complete with accessories.  
Instantaneous Gas Hot-water Heater; NEW.  
3-Large and Small Air Compressors.  
Two tons 12-lb. Relay Rails.  
Fourteen lengths 1 Beams.  
Sixteen Corrugated Galvanized Sheet Iron.  
24"x12" Hollow-spindle Lathe.  
Large Bronze Factory Whistle; NEW.  
Four Bronze 1" Electric Gongs; NEW.  
1-36" Boston Blower, 21x18 outlet, with or without Godfrey Keeler upright steam engine; NEW.

## NATHAN KLEIN CO.

218 Centre Street New York City

## MOTORS FOR SALE

3-Phase, 60-Cycle, 440 or 220-Volts, 850 R.P.M.

1-20 H. P.  
5-15 H. P.  
2-20 H. P.  
5-10 H. P.  
2-5 H. P., 1800 speed.  
1-5 H. P., 1800 speed.  
1-Generator, 480-volt, 3-phase, 60-cycle, 600 speed, and Exciter; also the belted Corliss Engine that drove same.  
1-25 H. P. Heine Boiler.

MACHINERY & SUPPLY COMPANY  
Greensboro North Carolina

## ROSS POWER EQUIPMENT CO.

## INDIANAPOLIS, IND.

1-36x60 Heavy-Duty Cor. Eng.; Ham.  
1-36x60 Heavy-Duty Cor. Eng.; Allis.  
1-20 and 40x12 Heavy-Duty Cor. Eng.; Allis.  
2-264 H. P., 160-lb. B. & W. Boilers.  
1-517 H. P., 150-lb. Stirling Boiler.  
3-150 H. P., 150-lb. H. R. T. Boilers.  
11-Steel Tanks, 12"x18".  
1-100,000 cu. ft. Gas Holder.  
Send us your inquiries power plant equip.

## NEW MOTORS

## Immediate shipments from Atlanta Stock

One each 5, 7½, 10, 25 and 30 H. P. General Electric 220 Volt 3-phase, 60 cycle motors Offered subject to prior sale.

## Seeger-Walraven Co.

Machinery and Mill Supplies  
38 W. Alabama Street  
ATLANTA, GA.

## In Asheville Stock

New and second-hand single and three-phase Motors, sizes 1 H. P. to 7½ H. P., 110, 220 and 440 volts.  
We want to put these motors out on essential work.  
Get our offer on the electrical equipment you wish to dispose of.

## Piedmont ELECTRIC CO.

Electrical Building  
ASHEVILLE, N. C.

450 K. W., 250-Volt, D. C. Crocker-Wheeler 135 R. P. M. Generator, direct connected to 29x36" Nordberg UNIFLOW Steam Engine, with complete steam and electrical accessories.

## Immediate shipment.

## Miller-Owen Electric Company, Inc.

"Pittsburgh's Electrical Clearing House"

PITTSBURGH, PA.

## VERTICAL MOTORS FOR SALE

2-G. E., 50 H. P., 1800 R. P. M., 440-volt, 60-cycle, 3-phase, Vertical Form K Motors, each with no-voltage release compensator and overload relay. Practically new. Also large stock Motors and Generators.  
V. M. NUSSBAUM & CO.  
FT. WAYNE, INDIANA

New Motors? New Ventilating Fans?  
New Mine Locomotives? New Tanks?

## I have them in Stock

## HOWARD B. PAYNE

1003-1004 House Building Pittsburgh, Pa.

## BOILERS

H. P.	Make	Pressure	Price
1-500	B. & W.	200	\$2000
2-350	B. & W.	200	6000
2-264	B. & W.	160	4000
2-250	Heine	160	4000

## POWER MACHINERY EXCHANGE, Inc.

1 Montgomery Street JERSEY CITY, N. J.

## FOR SALE

250-Volt D. C. Generating Unit.  
Skinner Engine, 15x14, direct connected to 75 K. W. Bullock 250-volt direct-current Generator.

## Shipment at once.

## HENRY P. THOMPSON

Mercantile Library Bldg. Cincinnati, Ohio

## FOR SALE—Electric Motors

We make a specialty of, and have the largest stock of SECOND HAND electric MOTORS and GENERATORS in America, and buy and sell, rent, exchange and repair electrical machinery of all kinds.

16th and Lincoln Streets, Chicago

## WILSON MACHINERY CO.

419 PINE ST. ST. LOUIS

## A. C. UNITS 3 PHASE 60 CYCLE

K. W.	Make	Volts	Rev.	Engine
2-100	Westing.	440	217	13x22x13 Westing. Vert.
100	G. E.	2300	3600	Curtis St. Turbine
2-105	G. E.	2300	237	16x14 Ideal
150	Westing.	Any	257	16x22x16 Westing. Vert. C.C.
150	Westing.	220	200	14x22x20 Russell
180	West. El.	2300	120	16x36 H. D. Corliss
200	West. El.	220	200	20x18 Atlas
240	G. E.	2300	200	15x28x18 Harrisburg
300	G. E.	440	—	McL. & Sec. C. C. 4-Va.
2-400	Westing.	Any	3600	Westing. St. Turbine Hor.
400	Westing.	2300	150	18-32x36 Corliss
400	Ridg.	220	150	27x28 Ridgway.
2-600	G. E.	2200	150	Rice & Sarg. C. C. Cor.
600	Westing.	Any	100	26x40x48 L. & H. Cor.
1500	Westing.	2300	1200	Westing. St. Turbine

All above generators can be reconnected for 440-220 Volts

## D. C. UNITS—250 Volts

K.W.	Make	Volts	Rev.	Engine
550	Allis	250	100	Allis Vert. C. C.
3 500	Fl. Wayne	250	90	22 & 38x48 Ham. C. C. H.
300	G. E.	250	185	B. Wood C. C.
200	Ridgway	250	180	20x22 McKewen
200	Allis	250	120	14 & 22x30 Allis C. C. Cor.
150	West. El.	250	270	R. W. Tand. Comp.
2 150	G. E.	250	250	Erie Ball. Tand.
100	C. W.	250	270	14x14 Payne.
1 75	Westing.	250	280	12x12 Ch. & Tay.
50	G. E.	250	280	12x12 Ch. & Tay.

## Oil Engines

2-50 H. P. M. & W.  
2-150 M. & W. 175-225 H. P. Belted.  
2-150 K. W. 2300 Volt A. C. dir. conn. to 225 H. P. Diesel.  
3-150 K. W. 250 Volt D. C. dir. conn. to 225 H. P. Diesel.  
310 K. W. 2300 Volt A. C. dir. conn. to 450 H. P. Diesel.

## ENGINES

20x60 L. & B.; 28x48 Twin City Corliss; 22x42 Vilter Corliss; 20x42 Monarch; 18x36, 16x36 St. Louis Corliss, practically new; 14x36, 12x36 Murray Corliss, excellent condition.

## BOILERS

H.P.	Press.	Lbs.	H.P.	Press.	Lbs.
48x14	125	2-72x16	125		
60x16	125	2-72x18	150		
2-60x16	125	515 Stirling	150		

This is only a partial list. Let us know your exact requirements; we probably have it.

## A. C. GENERATORS

1-75 K. W. Allis Chalmers Revolving Field Alternator, 3-phase, 60-cycle, 2500 volts, 900 R. P. M., exciter and switchboard.

1-100 K. W. Allis Chalmers Revolving Field Alternator, 3-phase, 60-cycle, 220 volts, 900 R. P. M., exciter and switchboard.

2-100 K. W. General Electric Revolving Field Alternators, 3-phase, 60-cycle, 2300 volts, 900 R. P. M., self-contained exciters.

All in fine condition  
Immediate shipment

K. L. JONES MACHINERY CO.  
ATLANTA GEORGIA

## Dynamos and Motors

One 50 H. P., 3-phase Westinghouse Motor; also one 10 and one 30 H. P.

One 50 K. W., 125-volt G. E. Generator, direct connected to an Armington & Sims center-crank steam engine.

One 35 K. W. Diehl, 125-volt Generator, direct connected to Ball-Wood center-crank steam engine.

One 15 K. W., 125-volt Eddie Generator, to Ideal horizontal center-crank steam engine.

S. J. STEWART (ELECTRIC)  
312 Carondelet St. NEW ORLEANS, LA.

Long Distance Phone M2201-2202

We Operate the Largest Electric Repair Shop South.

## FOR SALE

## One Auto Knitting Machine

And all accessories. Three pounds yarn included. Has not been used to any extent. Was bought February, 1918. Will take \$35 for outfit. A guide goes with it. Write

## A. L. SHANNON

BERLIN, ALA. Box 8

## ELECTRIC POWER PLANT FOR SALE

Now on skids at Redwine, Kentucky; can ship quick. Recently overhauled and is in perfect working order. Price \$6,750. L. & B. cars Redwine, Ky., sight draft and B/L attached. Can be inspected any time.

1 General Electric Curtis Turbo-unit consisting of:  
Generator: 1 750 K. W. General Electric Vertical, 3-phase, 60-cycle, 2300 or 440 volts 1800 R. P. M.

Turbine: 750 K. W. Condensing (550) K. W. Non-condensing Curtis Vertical, 1800 R. P. M., 150 lbs. steam pressure at throttle, 28" vacuum.

Above complete with all piping equipment. No condenser equipment.

LENOX SAW MILL COMPANY, LENOX, KY.

## ELECTRIC MOTORS

## A. C. 3-Phase, 60-Cycle Motors

H. P.	Make	Volts
300	G. E.	220/440
150	Whse.	220
150	G. E.	220/440/2200
75	G. E.	220
75	G. E.	220
75	Lincoln	220
75	Whse.	220/440
75	Whse.	220
50	Whse.	220
2-50	G. E.	220
40	W. E.	220
40	G. E.	220
40	AL-Chal.	440
40	G. E.	220
40	Whse.	440
2-40	G. E.	220
40	W. E.	220/440
35	W. E.	220
35	G. E.	220
30	Whse.	220

\*Vertical. †Brand new.

## D. C. GENERATORS and MOTORS

H. P.	Make	Volts
60	G. E.	220
55	K. W. Ft. Wayne	220
50	K. W. C. & C.	220
40	K. W. G. E.	220
40	K. W. Fks.-Mse.	220
2-35	Whse.	220
35	G. E.	220
35	C. & C.	220
30	S. & H.	125
30	G. E.	110
30	K. W. G. E.	220

## LARGEST STOCK IN AMERICA TRY US. LOWEST PRICES

NATHAN KLEIN & COMPANY  
203 Centre Street New York City

## Special for Quick Shipment

One 20x48 (240 h. p. at 100 lbs. steam) Putnam Poppet Valve Engine, with all fittings partly rebuilt; will be ready soon.....\$2,000

One 150 kw., 3-phase, 60-cycle 220-volt 514 r.p.m. Westinghouse revolving armature Alternator, with base, pulley rheostat, necessary exciter and switchboard; thoroughly rebuilt; immediate delivery.....\$1,500

## Send for Our Stock List

## GEO. F. MOTTER'S SONS

YORK, PENNA.

Do you receive our Stock Sheet Monthly? We have a complete stock of Motors—Both A. C. & D. C.—Ranging from 1 to 200 H. P.

Wire us—Write us—Phone us We are at your Service.

## DUQUESNE Electric &amp; Mfg. Co.

Write, wire or 'phone our nearest office:  
PITTSBURGH, PA.  
or 230 S. LaSalle Street, CHICAGO, ILL.

## GENERATOR AND PUMPS FOR SALE

One 100 K. W. Belt-driven Direct-current Bullock Generator, 125 volts, 550 rev.; in first class condition.  
Two 14 and 20x12x10 Duplex Compound Worthington Pumping Engines; good for 150 lbs. working pressure.  
One 14x7x12 Duplex Worthington Underwriters' Fire Pump, with all fittings. National Board specifications.  
One 6x3x6 Duplex Pot Valve Worthington Feed Pump; good for 250 lbs. pressure. All in first-class operating condition.

## E. C. BUTNER

1019 Empire Bldg. Atlanta, Ga.

## 70 H. P. ENGINE

Horizontal Nagle, good condition, for quick delivery. Also 2-inch Steam Pump and one Steam Jacket Kettle, 300 gallons. Price 2734 J.

R. A. MAPP Norfolk, Va.

## SCRAP IRON &amp; STEEL

Avoid trouble by selling to an old-established, reputable concern.  
We will pay the maximum price allowed by the Government on nearly all grades, the resting satisfied with the commission the Government allows the consumers to pay brokers as our profit.

A. M. WOOD & CO., Inc.  
305 Commercial Trust Building, Philadelphia, Pa.

## THE O'BRIEN MACHINERY CO.

### MACHINE TOOLS

- LATHES.**
- 2-16"x8" South Bend.
  - 2-15"x8" South Bend.
  - 2-13"x3" South Bend.
  - 5"x18" Bement Latha.
  - 5"x18" McCabe double spindle.
  - 26"x18" Harrington.
  - 20"x9" Lehman, 3 step cone, quick change gear.
  - 18"x9" Lehman, 3 step cone, quick change gear.
  - Several smaller lathes, new and used, in stock.
- DRILLS.**
- 6-20" Wheel and Lever, plain.
  - 6-20" Back Geared, Power Feed.
  - 2-24" Superior, stationary head.
  - 1-24" Hamilton, sliding head.
  - Large stock of new and used smaller drills.
- PRESSES.**
- No. 78 1/2 Bliss geared press, 25" throat, weight about 6500 lbs.

### ELECTRIC AND POWER EQUIPMENT

We have ready for shipment now from stock a well assorted stock of 220-volt D. C. MOTORS, some of which you will find listed below:

No. H. P.	Make.	Speed.
1 400	General Electric	200
1 200	Burke	375
1 100	Keystone	475
1 75	Keystone	500
1 50	Electro Dynamic	850
1 40	General Electric	1350
1 35	General Electric	1150
1 25	General Electric	1200
1 20	General Electric	1525
1 15	Westinghouse	650
1 15	General Electric	700
1 15	Allis-Chalmers	1150
1 10	General Electric	650
1 10	Westinghouse	1700
1 7 1/2	General Electric	1500
1 5	Westinghouse	1300
1 5	Triumph	1300
1 3	Westinghouse	1350
1 3	General Electric	1150

- SPECIALS**
- 4-150 H. P. Sterling water tube, 150 lbs. pressure.

## THE O'BRIEN MACHINERY CO.

119 North Third Street PHILADELPHIA, PA.  
Long Distance Bell Telephone, MARKET 2121 Cable Address, O'BRIEN, PHILADELPHIA

## Corliss Engines, Water Tube Boilers and Direct Connected Unit

### DIRECT CONNECTED UNIT

- (1) Engine, Rice & Sargeant, Simple, Non-Condensing, 30x48", 750 H. P. Generator, Westinghouse, D. C., 10-pole, 550 V., 90 R. P. M., 500 K. W.

### ENGINES

- (3) Allis-Corliss, Simple, Non-Condensing, 30x00".
- (1) Huettnerman & Kramer, cylinder 20x42, Right-hand Corliss Engine.

### GENERATORS

- (3) Westinghouse, D. C., 4-pole, 550 V., 500 K. W.

### LEATHER BELTS

- (3) 53", 140' long, Double Leather Belts.

### BOILERS

- (8) Campbell & Zell Water Tube Boilers, 12 tubes high and 12 tubes wide, nominal rating 275 H. P. each; set in batteries of two each, steam pressure 150 lbs. each.
- (1) Campbell & Zell Water Tube Boiler, 9 tubes high and 12 tubes wide, nominal rating 225 H. P., pressure 150 lbs.

### PUMPS

- (3) Worthington Duplex Feed, 9"-5 1/4"x10".
- (1) Knowles Deep Well, 12"-7 3/4"x38".
- (1) Westinghouse 9 1/2" Air Pump.
- (2) Centrifugal Circulating, Direct-driven, 12" Pumps, each driven by a 70 H. P. General Electric 550-volt direct-current motor, speed 500 R. P. M.
- (2) Horizontal 13x8" Worthington Dry Vacuum Pumps, direct driven by a 12 H. P. General Electric 500-volt direct-current motor, speed 300 R. P. M.

### MISCELLANEOUS

- One (1) Berryman Feed Water Heater, 5"x17".
- One (1) Locke Damper Regulator, complete with Damper Operating Mechanism.
- One (1) 15-ton Traveling Crane, 70' span, with Hand-operated Bridge and Hoist.
- Two (2) Perfection Oil Filters, 100-gallon capacity each.

## BOSTON IRON & METAL CO.

PRATT and FREMONT STS. BALTIMORE, MD.

## Used and New Equipment

### IMMEDIATE DELIVERY

### ENGINE GENERATOR SETS

#### A. C., 2300-Volt, 3-Phase, 60-Cycle, Direct Connected

- 1-675 K. W. General Electric Generator, 20" and 38" by 42" McIntosh-Seymour Tandem Compound Engine, 120 R. P. M.
- 1-375 K. W. General Electric Generator, 16" and 32" by 36" Tandem Compound Engine, 100 R. P. M.
- 1-300 K. W. Westinghouse Generator, 14" and 28" by 24" Erie City Cross Compound Engine.
- 1-325 K. W. Westinghouse Generator, 17" and 29" by 30" Erie 4-valve Tandem Compound Engine.
- 1-125 K. W. Burke Electric Co. Generator, McIntosh-Seymour 4-valve Engine.
- 1-65 K. W. Westinghouse Generator, 240-volt, 60-cycle, 3-phase, Fleming Harrisburg side crank automatic Engine.

#### 250-Volt, D. C., Direct Connected

- 1-300 K. W. General Electric Generator, 16" and 32" by 36" tandem compound.
- 1-250 K. W. Siemens & Halskel 17" and 28" by 22" McIntosh-Seymour tandem compound.
- 1-225 K. W. Bullock, 18"x36" Allis-Chalmers.
- 1-200 K. W. Ideal 17"x21" Buckeye automatic side crank piston valve Engine.
- 1-100 K. W. Goodman 17"x16" McEwen automatic center crank Engine.

#### Belted Sets

- 1-100 K. W. Westinghouse belted to Vilter 16"x36" Corliss Engine.
- 1-75 K. W. Westinghouse belted to 14"x36" Vilter girder frame Engine.
- 2-75 K. W. Crocker-Wheeler Generators, direct-connected to 2 Alberger gas producing Engines.

### BOILERS

#### Horizontal Return Tubular

- 7-72"x18" Erie City, 125 lbs. Press.
- 2-72"x16" Houston, 115 lbs. Press.
- 2-72"x16" Atlas, 120 lbs. Press.
- 1-72"x18" Wm. C. Pfeiffer, 125 lbs. pressure.

#### Water Tube

- 3-331 H. P. Erie City Hor., 160 lbs. pressure.
- 2-400 H. P. Erie City Hor., 160 lbs. pressure.

### HOISTING ENGINES

- 2-24"x36" Litchfield & Madison.
- 1-10"x16" J. C. Lamb.
- 1-65 H. P. Ottumwa Iron Works Electric Hoist.

### PUMPS

#### Boiler Feed

- 1-4"x3"x9" American steam packing.
- 1-4 1/2"x2 3/4"x4" Worthington Duplex.
- 1-6"x5 1/4"x7" Weir & Craig.
- 1-4 1/2"x2 3/4"x4" Worthington.
- 1-6"x4"x6" Smith-Valle.

#### Vacuum

- 1-4"x3"x9" American.
- 1-8"x10"x12" Deam.

#### Fire

- 1-18 1/2" x 10 1/4" x 10" Worthington, equipped with governor and safety valve, steam inlet 4", exhaust 4", suction 8", discharge 6".

### MINING MACHINES AND LOCOMOTIVES

#### Standard Gauge

- 2-16A Jeffrey Breast Machines.
- 4-HHD Morgan-Gardner Breast Machines.
- 2-6-ton Jeffrey gathering, new starting draw bar pull, 3600 to 4000 lbs.
- 1-50-ton Schenectady, Type 4-6-0, cylinders 19"x26", boiler pressure 160 lbs., capacity tank 5000 gals., tender 12 tons.
- 1-50-ton Baldwin, Type 4-6-0, cylinders 19"x26", boiler pressure 160 lbs., capacity tank 5000 gals., tender 12 tons.
- 1-60-ton Brooks, Class 2-8-0, cylinders 19"x26", boiler pressure 175 lbs., capacity tank 5000 gals., tender 10 tons.
- 1-Atlantic Type passenger, cylinder 18 1/2"x24", boiler pressure 140 lbs., capacity tank 5000 gals., tender 6 tons.
- 1-33-ton Vulcan saddle tank, cylinders 12"x18", boiler pressure 165 lbs., capacity tank 1100 gals., tender 900 lbs.

#### SCALES

- 1-100-ton Howe Automatic, 42" platform, steel construction throughout.

#### CONTRACTORS' EQUIPMENT

- 1-12-ton Climax Dinkey Locomotive; splendid condition; 24" gauge.
- 50-24" gauge 1 1/2 cu. yds. 2-way Side Dump Koppel Steel Cars.

### STEAM SHOVELS

- 2-250 Marions.
- 1-175B Bucyrus.
- 1-28 Marion.
- 1-36 Marion.
- 1-Keystone Loader.
- 1-Thew 5/8-yd. Dipper.

ALSO NEW RELAYING RAILS, FROGS AND SWITCHES, BIT STEEL, BRATTICE CLOTH, EXPLOSIVES, MINE CARS (PLAIN AND ROLLER BEARING TRUCKS) STEAM SPECIALTIES AND FITTINGS, SMOKE STACKS, COAL CRUSHERS AND CONVEYORS, MOTORS AND GENERATORS.

## RAILWAY & MINE SUPPLY CO.

332 So. Michigan Avenue CHICAGO, ILLINOIS  
Telephone Harrison 7382



## HARRIS BROTHERS COMPANY, CHICAGO

### Offer From Stock

#### Complete Crushing Unit

- 1—Complete Crushing Outfit, consisting of one Class K Allis-Chalmers gyratory crusher No. 6, 1 No. 3 crusher, complete with elevator, approximately 50', and three-section screen, with hoisting and driving apparatus, arranged for either steam engine or electric motor.  
Also, 1 No. 6 McCully Heavy Duty Belt-Driven Gyratory Crusher.  
1—No. 4 Champion Portable 4-Jaw Stone Crusher, with elevator, mounted on wheels, 9x15' opening.

#### Fire Brick

300,000 Fire Brick—Common—Silica—Christy—St. Louis and Buckeye; Indiana shipment.

#### Coil Chain

A large quantity in all sizes up to 1½ in.

#### Cable

500,000 ft. of Cable; sizes from 1½ to 2 in.

#### Hoisting Engines

- 1—7x10 double cylinder, single drum Mundy Hoisting Engine, skeleton type.  
3—4½x6 double cylinder, single drum Stroudsburg Hoisting Engines.  
1—8½x10 double cylinder, double drum Flory Hoisting Engine, skeleton type.  
1—9x10 double cylinder, double drum Russell Wheel & Foundry Co. Engine.  
1—Double cylinder, double drum Flory Hoisting Engine, skeleton type, cylinders 8½x12.

#### Direct Connected Outfit

- 1—Triumph 150 K. W., 250-volt, D. C. Electric Generator, with 16x21 Chase 4-valve engine, complete with switchboard.  
1—125 K. W. 125-volt D. C. Generator, direct connected to 18x18 Ames automatic center-crank engine, with switchboard and all equipment.

#### Locomotives

- 2—20" gauge Steam Locomotives.  
1—24-ton Shay geared, standard gauge Locomotive.  
1—50-ton, 4-wheel, standard gauge Locomotive.  
1—60-ton American & Baldwin.  
1—65-ton American & Baldwin.  
1—6-wheel American Locomotive, 61 and 63-ton, 180 lbs. pressure.

#### Gravel and Push Cars

- 25—20-yard-capacity, standard gauge, Gravel Cars.  
25—Standard gauge Push Cars, 10' long, suitable for stone and other heavy handling.

#### Dump Cars

- 30 Western & Oliver type, all-steel, 12-yd. Dump Cars, which we offer for sale or lease. These cars are located at various points in the East.

#### Overhead Traveling Cranes

- 1—4-ton, 2-motor Electric Crane, 20' span, 220-volt.  
2—75' Steel Plate Girders, equipped complete with 20-ton capacity hand-power trolley.  
1—25-ton hand-power Traveling Crane.

#### Surface Condensers

- 1—2000' Baragwannath.  
1—700' Worthington.  
2—400' Worthington.  
2—400' Baragwannath.

#### Steel Buildings

- 1—Steel Frame Building, 48' 6" clear span, 80' long, 10' columns to bottom chord.  
1—Steel Building, 41' 6" clear span, 80' long, 45' column to bottom chord.  
1—Steel Frame Building, 43' 4" clear span, 100' long, 20' column to bottom chord.  
1 Steel Frame Building, 50' clear span, 352' long, 39' column to bottom chord.  
1—Steel Frame Building, 75' clear span, flat truss, 160' long, 40' column to bottom chord.

#### Hydraulic Riveting Outfit

- 1—Chambersburg 150-ton Hydraulic Riveting Outfit, consisting of 1 hydraulic riveter, 12' 8" gap with pump, hydraulic hoist, crane, accumulator and container.

#### Gullotine Shear

Brand new Covington Gullotine Vertical Gate Shear; capacity 36" between housings; stroke 1½"; shears 1½" plate; clutch control; arranged for motor drive. Will sell with or without motor. Shear is brand new, and is offered for prompt shipment; subject to prior sale.  
Wire, or write for full details.

Our Latest Machinery Bulletin MR-306 sent free on request.

HARRIS BROTHERS COMPANY

#### Derricks

- 1—Wood Guy Derrick, with mast approximately 14x14 at base, 10x10 at top, with boom 80' long, 10x10.  
1—Wood Guy Derrick, with mast approximately 12x12, 60' high, with boom 60 to 80' long; 10x10; fitted with brass pushed sheaves and cable.  
1—Guy Derrick, with mast 14x14 at base, 10x10 at top, with boom 10x10, approximately 60' long, complete, with all irons, turntable, double block sheaves.

#### Rails

- 1800 tons 70-lb.  
250 tons 85-lb.  
50 tons 40-lb.  
Complete with angle bars and spikes for immediate delivery.  
6 miles 36" gauge Portable Track, with steel ties, 20 and 25-lb.

#### Locomotive Cranes

- 1—20-ton O. & S., 8-wheel, 42½' boom.  
1—40-ton Bucyrus, 8-wheel, 55' boom.  
1—2-ton, 4-wheel railway type, 110-volt storage battery Electric Locomotive Crane; boom 15', full revolving, with motors and controllers.  
1—15-ton, 8-wheel American.

#### Steel Tanks

- 1—12,000-gal. Storage Tank.  
2—11,000-gal. Storage Tanks.  
1—8,000-gal. Storage Tank.  
2—6,500-gal. Car Tanks.  
2—3,000-gal. Car Tanks.  
1—8x12' Air Tank; double riveted, ¾" material.  
1—60"x24' Pressure Tank, ¾" material.  
2—60"x14' Tanks; double riveted, ¾" plate.  
25—16"x46' Pressure Tanks.  
1—20" dia., 135' high Water Tower Tank, made of plates ¾", ¾", 5/16" and ¼".

#### Air Compressors

- 1—24x36x16½x30 Two-Stage Sullivan, 1850 cubic ft.  
1—10x16x19x10 Two-Stage Clayton, 550 cubic ft.  
1 14x16x9½x10 Rand, 400 cubic feet.  
2—10x10½x10 Single-Stage Gardner.  
2—1250-ft. cap. Ingersoll-Rand, steam driven, Imperial type.

#### Water Pipe

- |                |               |
|----------------|---------------|
| 50,000 ft. 1"  | 15,000 ft. 4" |
| 35,000 ft. 1½" | 8,000 ft. 6"  |
| 65,000 ft. 2"  | 2,000 ft. 8"  |
| 48,000 ft. 2½" | 3,000 ft. 10" |
| 8,000 ft. 3"   | 1,500 ft. 12" |
- 13,000 ft. 1½" double, extra strong, seamless Steel Tubing; good for 5000 lbs. pressure, fitted with Briggs threads each end, and couplings.

#### 20" Pipe

- 15 miles of 20" Spiral Riveted A. & B. Pipe, with flanged compression connections. This pipe is made of No. 8 gauge; is in A-1 condition. Delivery can be made immediately.

#### Wire Cable

- Several thousand feet of Steel Wire Cable, ranging in sizes from ¾ to 2". Send us a memorandum of your requirements.

#### Large Pumps

- 1—12x20x12x18, outside packed, Platt Iron Works.  
2—12x20x10x24 Snyder-Hughes.  
2—16x10½x14 Knowles, outside packed.  
10—6x4x6 Worthington Duplex.  
2—12x20x24 Worthington Vacuum Pumps.

#### Complete Power Plant

- 4—72x18' Triple-Riveted Butt-Strapped Boilers, with Sturtevant mechanical draft, coal-handling and weighing apparatus.

#### Boilers

- 7—250 H. P. Cahall Vertical Boilers, Rooney stokers, 160 lbs. pressure.  
2—360 H. P. Atlas Water-Tube, shaker grates, 150 lbs. pressure.  
2—150 H. P. Scotch Marine, 125 lbs.  
5—100 H. P. Marine Boilers, 100 lbs.  
2—125 H. P. Marine Boilers, 125 lbs.  
2—80 H. P. Firebox Boilers, 80 lbs.  
4—72x18', triple riveted, butt strapped, 125 lbs. pressure.  
2—66"x16', triple riveted, butt strapped, 125 lbs. pressure.

#### Punches and Shears

- 1—Heavy-duty Gate Shear, with 21" blade, 11" throat, cap. cutting up to 1½" plates, spur gear, 42" dia. by 10" face.  
1—Lennox Rotary Bevel Shear; cuts ¾" plate.  
1—Wiener Steel Plate I-Beam Shear for 15" I-beams.  
1—Single End Punch, 27" throat, ¾" through ¾".  
1—12" Boiler-makers' Flanging Clamps.

# EQUIPMENT

## Immediate Delivery

### GENERATING SETS

- 1—20 K. W. D. C. General Electric to Ideal engine.  
2—25 K. W. D. C. Thompson & Ryan to McKewen engine.  
1—15 K. W. 40-volt Eddy Electric Motor Generating Set.  
1—60 K. W. 220-volt D. C. Allis-Chalmers Generator.  
1—135 K. W. 1200 or 2400-volt 2-phase Stanley Generator, with engine.

# TURBINES

- 3—75 K. W., 250-volt D. C. General Electric Generator, direct connected to Curtis turbine, 150 lbs. working pressure, complete with oiling system and switchboard.

### MOTORS

From 2 to 80 H. P., direct current, 220 volts.

### HOISTING ENGINES

- 1—32 H. P. D. C. D. D. Mundy, 8x12, with boiler.  
1—20 H. P. Mead-Morrison Bridge Hoist.  
1—10 H. P. D. C. S. D. Lambert, Link Motion, 5½x8, and boiler.  
1—6 H. P. D. C. S. D. Lidgerwood Hoist, 6¼x8, and boiler.  
1—40 H. P. S. D., 220-volt, D. C. Lidgerwood Builders' Hoist  
1—8½x10 H. P. S. S. S. D. Lidgerwood with boiler.

### AIR COMPRESSORS

- 1—1000-ft. Air, Sullivan. 1—120-ft. Air, Nagle, steam driven.  
1—125-ft. Air, Chicago. 3—60-ft. Air, Nagle, new, belted.

### ENGINES

- 1—300 H. P. Corliss. 1—35 H. P. Horizontal.  
1—100 H. P. Horizontal, Ames. 2—25 H. P. Horizontal  
1—100 H. P. Horizontal, Taylor. 1—50 H. P. Vertical.  
1—50 H. P. Horizontal, Ball.

### PUMPS

- 1—1000-gal. Knowles Single. 2—Centrifugal.  
1—750-gal. Worthington Duplex. 8—Rotary and Triplex.  
2—300-gal. Snow Duplex. 2—Deep Well.

# BOILERS

- 2—80 H. P. Return Tubular Boilers, 120 pounds pressure.  
3—100 H. P. Return Tubular Boilers, 100 pounds pressure.  
1—125 H. P. Return Tubular Boiler, 125 pounds pressure.  
2—125 H. P. Return Tubular Boilers, 100 pounds pressure.  
3—150 H. P. Return Tubular Boilers, 120 pounds pressure.  
1—250 H. P. Sterling Boiler, 120 pounds pressure.  
3—80 H. P. Locomotive Boilers, 100 pounds pressure.  
2—75 H. P. Locomotive Boilers, 100 pounds pressure.  
1—75 H. P. Economic Type Boiler, 100 pounds pressure.

### STACKS

- 1—66-inch x 110-foot, fine condition; many other sizes in stock.

**Mallory Machinery Corporation**  
BALTIMORE, MD.

## FOR SALE FIRST CLASS Used Machinery

Logging, Railroad, Sawmill, Planing Mill, Cableway, Power Plant, Yard, Fire Protection, Electric, Engineering, Club House, Hotel, and Ice-Plant Machinery and Equipment, including following and many other items:  
BAKE OVEN—Burton Four-Shelf Improved.  
CABLEWAY—Lidgerwood 12x12 Cableway.  
Engine, Steel Tower and Cables.  
CARS—3" gauge, All-Steel Industrial Cars.  
DRYKILNS—Complete two-room Drykilns.  
DRAG SAW—Hill No. 7 Steam Drag Saw, with Steam Hoist.  
ELECTRIC—Six-Panel Marble Switchboard, with instruments. Also lot of miscellaneous Electrical Supplies.  
GRINDER—Covel No. 30 Hand Saw Grinder, with floor stands and filing clamp.  
ICE PLANT—Remington three-ton plant.  
LOG JACKER—Extra Heavy Spur and Bevel Gear Drive.  
TURNER—Hill Friction Drive Overhead.  
WELDER—Woods No. 107 Inside Molder.  
PLANNER AND MATCHER—American No. 2, with jointing attachment.  
POOL TABLES—Brunswick-Balke Standard, with cues, balls and racks.  
PREPARATOR—Kreutzer Steel Cylinder Preparator.  
RESAW—Six-foot, left-hand Diamond Horizontal.  
RANGE—Burton No. 36 Double Hotel Range.  
SHINGLE MACHINE—Challoner 10-block.  
SPRINKLER—Grinnell Automatic Sprinkler System.  
If interested, write for complete booklets and prices covering above and many other items.

**Santee River Cypress Lumber Co.**  
**FERGUSON, S. C.**

## EQUIPMENT AT DARBEEY MINES

Darbeeysville, Virginia  
1-2"x18", H. R. T. Welch & Weldner Steel Casing, put in in 1915; all complete; 3/4 front, stack.  
1-2"x18", H. R. T. Pennsylvania Boiler Works, Erie, Pa.; 10 years old; 1/2 front, stack.  
1-Webster Star Vacuum Feed-Water Heater, type R, 400 H. P., No. 8256.  
1-Air Compressor, Leidlady-Dunn-Gordon, class C-2, duplex, 2-stage, fork frame, Meyer valve gear, cap. 1500 ft.  
1-5" diameter x 5 ft. 2-4" diameter x 7 ft.

## AIR RECEIVERS PUNCHERS

1-Sullivan, heavy type. 8-Harrisons, type M.  
1-Ingersoll, H-4.  
1-Pipe, 300 ft. 2 1/2" Pipe, 1500 ft.  
1-Pipe.  
1-Set R. R. Track Scales, standard gauge. Make, Fairbanks-Morse; capacity, 40' platform, 80 tons; beam, approximately 5'. All complete.

## EQUIPMENT AT OLD VIRGINA MINES

1-Erie City Boiler, 66"x16", Erie City Iron Works, patch in front, fire box.  
1-Atlas Boilers, 66"x18", no patches, new flues.  
1-Gould Deep-Well Pump, motor 5 H. P., 20-v., D. C., 40 gallons per minute, 80' suction rods, working barrel, 2 1/2" pipe.  
**Southern Machinery Company**  
P. O. Box 255 Knoxville, Tenn.

## 60 HORSE-POWER Gasoline Hoisting Engine

Cylinder Gasoline Hoisting Engine, 60 horse-power, corresponding with an 8 1/2"x10 inch hoisting engine; has two drums and two winch heads. Drums are 14 inches in diameter and 27 inches long between flanges. Has two speeds. Single-line pulling capacity 9000 pounds; has Bosch magneto and carburetor; also gasoline tank and water-cooling tank.  
Is provided with clutches which permit the engine to be started without operating the hoisting mechanism.  
A powerful, well-built engine, on which we can give immediate shipment.

**AMERICAN HOIST & TERRICK CO.**  
ST. PAUL, MINN.

## SHAPER AND PLANNER FOR SALE

The Whitney No. 8 Double-Spindle Vertical Shaper, with bronze conical bearings, adjustable countershaft, regular fittings, the Falls No. 43 24" Undercut Planer, with power feed, regular fittings.  
Both machines practically new.  
Not needed here.

**Allright Manufacturing Co.**  
RURAL HALL, N. C.

1-10x10 Rand Imperial, type X1, 300-ft. Belted Air Compressor.  
1-Steel Car Tank, 7 ft. x 25 ft.  
1-25-ton Vilter Corliss Ice Machine.  
1-Brown Hoist H. P. 2-yard Clam Shell, single-line bucket.  
1-120 H. P. Closed Feed-Water Heater.  
1-125 H. P. H. T. Butt-Strapped Boilers.  
1-3-yard Orange Peel, 2-lined bucket.  
1-250 H. P. Mosher Water-Tube Boilers, 100 lbs. pressure.

**CONSOLIDATED MACHINERY & WRECKING COMPANY**  
40 Church Street NEW YORK CITY

## DELIVERY NOW SECOND-HAND TOOLS

36" x 36" x 24' L. W. Pond Planer.  
Two heads on cross rail.

Landis 10"x30" Plain Grinder with Universal Headstock.  
Two Brown & Sharpe No. 3 26" Automatic Gear Cutters.  
Ingle Automatic Gear Tooth Chamfering Machine.  
24" Cincinnati High-Speed Driven Upright Drill with Gear Box and Tapping Attachment.  
Universal Swivel Table for Radial Drill.  
No. 1 Diamond Bench Grinder on pedestal.  
24" Rockford Wet Tool Grinder.  
Globe Tool Sharpener.  
Dry Grinder for two 12" wheels.  
15 H. P. Monitor Planer Control without motor, 110-volt, D. C., first-class condition.

## D. C. MOTORS

1 1/2 H. P. Westinghouse, 220-volt constant.  
1 1/2 H. P. Reliance, 220-volt constant.  
1 1/2 H. P. General Electric, 110-volt variable.  
1 1/2 K. W. Triumph, 220-volt Generator.

**The Lodge & Shipley Machine Tool Company**  
CINCINNATI OHIO

1-42-in. 3-Drum Invincible Sander.  
1-42-in. 3-Drum Columbia Sander.  
1-60-in. 3-Drum Columbia Sander.  
1-48-in. H. B. Smith Endless-Bed Sander.  
1-24-in. 3-Drum Egan Sander.  
1-24-in. 1-Drum Boss Sander.  
1-30x6 Pay 6-Roll Double Surfacar.  
1-28x8 Woods 6-Roll Double Surfacar.  
1-28x8 Rogers 6-Roll Double Surfacar.  
1-30x12 999 6-Roll Double Surfacar.  
1-30x6 Egan Cabinet Planer.  
1-27x7 Smith Cabinet Planer.

Woodworking Machinery of All Kinds  
Engines and Boilers

**THE CLEVELAND BELTING & MACHINERY CO.**  
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## First-Class Used Machinery

For Every Conceivable Kind of

MORING MACHINES  
DRILLS  
GEAR CUTTERS  
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LATHES  
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PLANERS  
SHAPERS  
SAWS  
SHEARS  
TURRENT LATHES, Etc.  
**CONSULT**

**HENRY PRENTISS & CO., Inc.**  
NEW YORK, N. Y.

## PUMPS FOR SALE

Two STILWELL-BIERCE, SMITH-VAILE Compound Duplex Pumps; steam cylinders, 14-in. and 20-in. diameter; water end 10-in. diameter; 15-in. stroke; brass lined on water end and outside center packed; steel piston rods; suction 12-in., discharge 10-in. Built for 250 lbs. working pressure. Weight 17,000 pounds. Can furnish suction and discharge connections, including foot valve, check and gate valves, pipe and fittings. Address

**The J. B. McCrory Company**  
140 Third National Bank Bldg.  
ATLANTA, GA.

## FOR SALE

One Vulcan one-yard Steam Shovel, Tractor type, 22' boom. Price \$3250.  
Two Atlas Boilers, operated as a unit, size 36"x29", with 14-6" tubes, complete with all fixtures and stack. Price, complete, \$200.  
One Brownell Boiler, 54"x14", complete except stack. Price \$400.  
AIR COMPRESSOR, Duplex, 10x12x14, made by the Hall Steam Pump Co., steam driven, in the very best used condition. Price, complete, \$1500.  
One Fay & Egan 6' Band Sawmill, complete with boilers, engine, carriage, nigger and filling-room equipment. Price, complete, \$3500.  
Hoisting Engine, complete with boiler and D. C., 8 1/2"x10, O. & S. make, single drum, with one winch head, about 1000 ft. wire rope. Price \$1250.  
Hoisting Engine, complete with boiler, D. C., 6 1/2"x8, D. D. O. & S. make. Price, complete, \$625.  
One Buffalo Heater, complete with 72" fan, coils, and as good as NEW. Suitable for medium-size factory. Price, complete, \$300.  
Wood and Iron Working Machinery, Shafting, Pulleys and Belting. Write for a complete list, or send us your inquiries.  
**A. A. McLaughlin & COMPANY**  
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## Saw Mill Machinery For Sale

Large stock Engines, Boilers and all kinds of Saw Mill Machinery, including Shingle, Lathe and Planing Mill Machinery, Filing Room Equipment, Machine Tools, Railroad Equipment, etc.

**HARTFELDER-GARBUTT MACHINERY COMPANY**  
EQUIPMENT AND SUPPLIES FOR  
MILLS AND RAILROADS  
SAVANNAH, GEORGIA

## SECOND HAND BRICK MACHINERY

FOR SALE—Cheap for Cash  
f. o. b. cars Slidell, La., Second-Hand Brick Machinery; Chambers No. 8 Pug Mill, Brick Machine, Automatic Cutter, all good condition. Address

**SOUTHERN CREOSOTING CO., Ltd.**  
Slidell, La.

## 800,000 Corrugated Iron Fasteners FOR SALE

Ready to Ship. Send for Booklet.  
**McCOY IRON WORKS, INC.**  
Perth Amboy, N. J.

## New Stock BOLTS—RIVETS—BARS

at Moving Prices  
Lot 1—Track Bolts, 13,000 1" x 3 1/2" to 4 1/2".  
Lot 2—Round Head Bolts, 2,000 1" x 6" to 12".  
Lot 3—Flat Head Bolts, 3,000 1 1/8" x 6" to 8".  
Lot 4—Flat Head Bolts, 3,000 1" x 2" to 8".  
Lot 5—Machine Bolts, 4,000 1 1/4" x 5" to 24".  
Lot 6—Machine Bolts, 17,000 1 1/8" x 4" to 30".  
Lot 7—Machine Bolts, 12,000 1" x 3" to 30".  
Lot 8—Machine Bolts, 5,000 3/8" x 7" to 16".  
Lot 9—Machine Bolts, 26,000 3/8" x 3" to 12".  
Lot 10—Csk. Head Bolts, 25,000 3/8" x 2 1/2" to 3 1/4".  
Price Entire Lot 4c. lb.; less quantities 5c. lb.  
Lot 11—Heat Treated Machine Bolts, 1,500 1 1/4" x 6" to 19".  
Price Entire Lot 10c. lb.  
Lot 12—Button Head Rivets, 135 kegs, 1/2", 3/4", 5/8", 1" x 1 1/4" to 6".  
Lot 13—Csk. Head Rivets, 80 kegs, 1/2", 3/4", 5/8" x 2 1/2" to 3 1/2".  
Price Entire Lots 3c. lb.; less quantities 4c. lb.  
Lot 14—Soft Steel, 750 pieces, 2" x 3/4" x 4 ft. Lot 3c. lb.  
Lot 15—High Speed Steel, 1000 lbs., 1 1/2" to 2 1/2" sq. Lot \$1.00 lb.  
Lot 16—Wire Rope, 1000 ft. 1". Lot \$150.00.  
Lot 17—Rail Braces, 16,000, for 30-lb. to 100-lb. rail.  
Lot 18—Guard Rail Clamps, 200, for 60-lb. to 85-lb. rail.  
Lot 19—Adjustable Switch Rods, 350, for 60-lb. to 100-lb. switches.  
Lot 20—Ground Throw Switch Stands, 500, for 12-lb. to 100-lb. switches.  
**CENTRAL TRACK SUPPLY CO., 1080 Kenton St., SPRINGFIELD, OHIO**

## MACHINERY FOR SALE

### BULL RIVETER

1—W. H. Wood Hydraulic Riveter, complete, with accumulator, high-pressure pump, container and hydraulic hoist. Riveter has 3" gap.

### ROTARY BEVEL SHEAR

1—Lennox Rotary Bevel Shear, size No. 2, with cutting discs or shear blades Capacity, 3/4" steel.

### RADIAL DRILL

1—American, 42" arm, 36" swing, cone drive, worm movement. Swinging and tilting table.

### BENDING ROLLS

1—set 10' 6" Power Bending Rolls with reversing mechanism, hand raising and lowering attachments. Top roll 12" diameter, bottom rolls 8" diameter, double pulley drive.

### COMBINATION PUNCH AND SHEAR

1—No. 4 Long & Allstater, 5" throat.

**F. MAYER**

1601 Monadnock Building CHICAGO, ILL

## For Sale—Big Bargain SEMI-DIESEL OIL ENGINE GENERATOR SET

Immediate Shipment F. O. B. Cars Iowa

1—50 H. P. Mietz & Weiss Horizontal Twin-Cylinder, Semi-Diesel, Crude Oil or Kerosene Engine, operating at 275 R. P. M., with 48"x13" belt pulley, water tank, oil tank, force feed lubricator, etc.  
BELETED TO  
1—50 K. W. General Electric Co. Alternator No. 192644, P. F. L. 00, Form PB, Type ATR, 60-cycle, 3-phase, Class 6-50-1200, amp. 12.5, speed 1200; volts, full load, 2300. With 10"x10" Rockwood Paper Pulley, Exciter Driving Pulley and Slide Rails.  
1—2 K. W. Compound Wound, Type CVC, 125-V. Exciter, with Paper Pulley and Slide Rails.

We guarantee the above unit to be in good operating condition.  
Price \$2500 f. o. b. cars Iowa.

If interested, get in touch with us immediately by telegraph, our expense.  
Address

**WOOD & LANE COMPANY**  
St. Louis, Mo.



## For Sale—Great Bargain POWER PLANT READY TO RUN Immediate Shipment from Kentucky

- 1—125 K. W. Goodman, 250/275-volt, 550 R. P. M., compound wound Generator, belted to a 16x17 McEwen center-crank engine, complete with oiling system, belt, etc.
- 1—Switchboard for same, complete instruments, circuit breaker and switches.
- 1—72"x18" Tudor H. R. T. Boiler, 115 lbs. steam pressure allowed, complete with full flush fronts, all necessary fittings and trimmings, stacks, breechings, etc.
- 1—60"x16" Tudor H. R. T. Boiler, same specifications.
- 2—Boiler Feed Pumps for same.

Price complete as described \$5750, f. o. b. cars Kentucky.  
If interested, use wires quick—our expense.

Address:

**WOOD & LANE COMPANY**

St. Louis, Mo.

**WALWORTH WELDED TUBE  
RADIATORS**  
FOR STEAM 10 TO 50 FT. RADIATION  
**5 Cents Per Pound**  
THE HERFURTH ENGINE CO., Incorporated  
Alexandria, Va.

### FOR SALE

3 retorts or cylinders, 45 ft. long, 6 ft. diameter, 3/4 boiler plate, one detachable head, stand 125 lbs. pressure, 23 in. track inside. Lime or feed grinder, made by Sturtevant Co., French burr stones about 3 ft. diameter.

**E. BEAN & SON COMPANY**  
JACKSONVILLE, FLA

**ICE PLANTS**  
1—50-ton Ice Plant, York, steam driven.  
1—50-ton Ice Plant, Frick, steam driven.  
1—30-ton Ice Plant, Frick, steam driven.  
1—50-ton Ice Plant, Vilter, steam driven.  
1—15-ton Ice Plant, York, chain driven.  
1—6-ton Ice Plant, York, belt driven.

**REFRIGERATING MACHINES**  
(Steam Driven)  
1—90-ton Ref. Mch., York, steam driven.  
1—80-ton Ref. Mch., Frick, steam driven.  
1—80-ton Ref. Mch., Vilter, steam driven.  
2—70-ton Refr. Machines, De La Vergne, steam driven.  
3—50-ton Refr. Machines, steam driven.  
1—40-ton Ref. Mch., Wegner, belt driven.  
1—40-ton Ref. Mch., Wolf, steam driven.  
1—25-ton Ref. Mch., Wolf, steam driven.

**ICE TANKS**  
1—432 Cans, complete, De La Vergne.  
1—542 Cans, complete, York.  
2—580 Cans each, complete, De La Vergne.  
1—463 200 lb. cans, complete.  
1—500 200 lb. cans, complete.  
1—500 300 lb. cans, complete.

**REFRIGERATING PLANTS**  
(Belt Drive)  
1—18-ton Belt or Steam-drive Vilter.  
2—10-ton Belt Vilter, upright, enclosed, complete.  
1—10-ton Belt, Baker Horizontal, open, complete.  
1—5-ton Belt, Remington, complete.  
Cans, Receivers, Accumulators, Hoists, Pumps, etc.

**BERRYMAN'S**  
Refrigerating Machinery  
**EXCHANGE**

The Bourse, PHILADELPHIA, PA.  
30 Church Street NEW YORK, N. Y.

### WAGONS AND TRUCK FOR SALE

14—4 and 6-Horse Wagons, our own make, in good condition; also 5-ton Steel-Body Dump Truck Hydraulic Hoist, in good working order.

**BALTIMORE QUARRIES CO.**  
600 Law Bldg. Baltimore, Md.

### FRICITION SAWS FOR SALE

4—No. 3 Ryerson high speed, power feed—with motors—located at Alliance, Ohio, and Indiana Harbor (Indiana) Works. Bg bargains. For full particulars, address

Purchasing Department  
**American Steel Foundry**  
McCormick Bldg. CHICAGO, ILL.

### IRON AND STEEL PULLEYS FOR SALE

Lot of slightly used iron and steel pulleys—all sizes.

**Foltz Mfg. & Supply Co.**  
Hagerstown, Md.

### TRUSS SPAN

FOR SALE—One E 21 Coopers, Loading, Standard-gauge, Through Pin Truss Span, 147 feet long; approximate weight, 75 tons. For particulars, apply to

**LEROY SPRINGS, President**  
LANCASTER SOUTH CAROLINA

## Railroad and Contractors' Equipment and Supplies.

### STEAM SHOVEL

THEW, type 1, 30 ton, full circle swing, 1-1/8 cu. yd. dipper, traction wheels. Good as new. Immediate delivery.

#### STEEL RAILS

500 tons 50 lb. Reley.  
175 tons 60 lb. Reley.  
13 tons A. S. C. E. New.

#### LOCOMOTIVES

VULCAN 24-in. gauge, 7x12 in. 9-ton four-driver saddle tank, Shop No. 2333.  
BALDWIN 36 in. gauge, 10x16 in. four-driver saddle tank. Immediate delivery.

#### BUCKETS

Stebner's Excelsior-Type Bottom-Dump Concrete Buckets, 7 of 1-yd. capacity, 8 of 1-1/2 yd. capacity.

#### DUMP CARS

WESTERN 36 in. gauge, 4-yd. 2-way, steel-lined floors, 8 cars.

#### HOISTS

LIDGERWOOD 7x10 in. D. C. D. Derrick Hoist, skeleton, with No. 4 boom swing-ing gear, No. 2606.  
LIDGERWOOD 9x10 in. D. C. double-friction drum tandem; Reversible Link-Motion Cableway Hoist, skeleton. Good as new, No. 23022.

#### CONCRETE MIXER

SMITH No. 10, with gasoline engine on trucks.

### E. C. SHERWOOD

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Telephone 3322 Cortlandt

### For Sale Combination Steam Shovel LOCOMOTIVE CRANE

Type B, Erie Combination Steam Shovel Locomotive Crane, Shop No. 258, built 1917. Mounted on four broad-tired traction wheels; has 32' straight steel locomotive crane boom, 3/4 yd. Owen clam-shell bucket; also has steeper shaft steam shovel boom, 3/4 yd. dipper, with 12' 6" dipper stick (never used). Engines and drums equipped for two-line clam-shell work; also power drum for raising and lowering boom; built strapped boiler, pass any city. Machine has only seen 140 days' service. Can be inspected working as crane. Immediate shipment from Central Wisconsin. Truck frame can be fitted with standard-gauge railroad wheels, procurable from Rail Engine Co. We own this Crane, and offer same subject to prior sale. Mechanical condition guaranteed. Revolving and self-propelling. Price, loaded, \$9100. Terms, cash.

**KERN-HUNTER CO., Inc.**  
208 Wells St. MILWAUKEE, WIS.

### FOR IMMEDIATE DELIVERY One-Mile Tramway & Equipment

3600-ft. x 1 1/4-in. Locked Coil Track Cable.  
5280-ft. x 1 1/4-in. Locked Coil Track Cable.  
10,650-ft. x 3/4-in., 6/7 C. C. Steel, Lang Lay.  
4500-ft. x 1/2-in., 6/7 Plow Steel, Lang Lay.  
2/3000-ft. x 1-in., 6/7 Scotch Plow Steel, Lang Lay.  
750-ft. x 2-in. 6/19 Plow Steel, Anchor Weights and Carriages.  
576-ft. x 2-in. Flatwire, G. O. Steel, Anchor Weights.  
30-ton Steel Wire Rope, 3/4 to 1 in.  
10-ton Galvanized Guy Rope, 1/2 in. to 1 1/4 in.  
2000 Steel and Wood Blocks, 6 in. to 20 in.  
10 Steel Blocks, New, 18-in. for 1-in. Wire Rope.  
10-ton Bridge and Sling Chain, 1/2 in. to 1 in.  
2 Ton Mauls, 8 to 30-lb.  
1-ton Stone Dogs (Heavy).

All First-Class Second-Hand Condition  
Your Inquiries Solicited  
**John F. Meighan, 885 Third Ave., N. Y. City.**

### RAILS, MACHINERY, ETC.

40-LB. RELAY RAILS—500 tons, located at Mobile, ready for immediate shipment.  
25-LB. RELAY RAILS—75 tons, complete with splice bars.  
DRYKILN—Moore Kiln, 24x90 feet; splendid condition.  
DRYKILN TRUCKS—80 Roller-Bearing Trucks, 6 feet long; practically new.  
BLOWER—Buffalo No. 8; good as new.  
RADIATORS—16 Cast-Iron Radiators for steam or water heating system.  
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ENGINE—14x18 H. S. & G. Engine; fine condition.

CRUSHER—24x24 Roll Coal Crusher.  
SPIKES—15 tons Standard Second-Hand Spikes.

Write us for anything you want.  
**RELIANCE EQUIPMENT CO., MOBILE, ALA.**

### Steam Shovels

1 Model 70 Bucyrus.  
1 Model 60 Marion.  
1 No. 0 Thew.  
1 Erie, with extra boom and clamshell bucket.  
1 Model 28 Marion.  
1 Keystone Grader.  
1 10-ton Steel Derrick, complete, with 8 1/2 x 10 D. C. D. Lidgerwood Engine and Boiler.  
1 10x20 Acme Crusher, with elevator and screen.  
1 1/2-yard Smith-Chicago Concrete Mixer, with engine and boiler on wheels.  
A large quantity of small equipment and tools.

**RALPH R. LEWIS CO.**  
538 Commercial Trust Co. Philadelphia, Pa.

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Locomotives, Freight and Passenger Cars of every description and gauge of track. Rails bought and sold.

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39 Cortlandt St. New York City

### Railroad Equipment Mine Locomotives and Machines Locomotives

**THOMAS F. CAREY CO.**  
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**BLOCKS**  
Steel and Wood Tackle Blocks of All Diameters  
For Immediate Shipment  
**WIRE ROPE, New and Used**  
**ATLANTIC EQUIPMENT CO.**  
Singer Building New York

**Steam Shovels and Dump Car Frames FOR SALE**  
At Nichols, Florida

2—Vulcan Class "E" Steam Shovels; in good condition.  
30—Continental Dump Car Frames, with axles and wheels.

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Steel Derrick Car, Derricks, Dredge Buckets, Engines and Pumps.

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### TRUCK FOR SALE

One 5 1/2-ton Truck, automatic dump body. Practically new. Immediate delivery. Inspection Sioux City.

**L. G. EVERIST, Inc.**  
SIOUX CITY IOWA

### LANE'S LIST

165 H. P. Twin Cylinder Miller Improved Gas Engine.  
50 H. P. Boos Gas Engine.  
8 1/2 x 10 Thomas D. C. D. D. Chain Drive, Two-Speed Skeleton Steam Hoist.  
3/4 yd. Smith Mixer on Skids, steam engine only.  
10 H. P. A. C. Motor, 220 Volts.  
2800-lb. Drop Hammer and Pile Cap.  
50-ft. Steel, 2-Section Steam Shovel Boom for clam shell work.

Locomotives, Cars, Rail, Track, Crushers, Boilers, Pipe, Cable, etc.

**T. J. LANE EQUIPMENT CO.**  
14 BUSHNELL BLDG. SPRINGFIELD, OHIO

### EQUIPMENT FOR SALE

1—Cummer Asphalt Plant.  
1—Five-ton Tandem Kelly Springfield Roller.  
1—Ten-ton Tandem Kelly Springfield Roller.  
1—Ten-ton Macadam Kelly Springfield Roller.  
1—Smith-Valle Duplex Pump 2x18, steam, 10x18 water.  
15,000 ft. 2" Wrought Steel Pipe.  
6—Five-ton Pierce Arrow Automatic Pump Trucks.  
12—Wagons, Watson Automatic Dump.  
2—27 E. Foote Concrete Mixers.  
1—72' Boom Stiff-Leg Derrick, Industrial Irons.  
1—18" Swing American Quick-change Lathe.  
1—Cincinnati Plain Milling Machine.  
1—Planer.  
1—80-lb. Boyer Air Hammer.  
1—40-lb. Boyer Air Hammer.  
1—6x12 Air Compressor.  
1—Electric Drill.  
Reamers.  
Chucks.  
1—8" Morris Sand and Gravel Pumping Outfit, complete.  
1—115 H. P. Oil Engine.  
Power Hoists.  
Suction and Discharge Lines.  
Complete Screen and Steel Overhead Hoopers.  
1—Barge.  
**L. G. EVERIST, Inc.** Sioux City, Iowa

### STEAM ROLLERS

One 10-ton Aveling-Porter Three-Wheel Single-Cylinder Road Roller in first-class condition.  
One 10-ton Harrisburg Three-Wheel Tandem Steam Roller in first-class condition.  
One 7-ton Universal Tandem Steam Roller, hand steer.  
One 6-ton Kelly-Springfield Tandem Steam Roller, hand steer, thoroughly overhauled.  
Two 5-ton Buffalo-Pitts Tandem Steam Rollers, almost new.  
One 5-ton Erie Tandem Steam Roller, power steer.  
One 5-ton Iroquois Tandem Steam Roller, power steer.

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**Contractors' Machinery & Supply Co.**  
509-11 Wabash Bldg. PITTSBURGH, PA.

### DERRICK CAR FOR SALE

We have specially built Unloading Outfit, mounted on 35' standard railway flat car, 7x10 Am. H. & D. D. D. hoisting engine, with swinging attachment, Am. H. & D. timber A frame derrick, with 30' boom, 4 yd. Klesler clam-shell bucket, cables; hand crab, for raising boom. Not self-propelling. Good condition. Offered subject prior sale. Immediate shipment, Central Wisconsin. Price, complete, \$2800.

**KERN-HUNTER CO.**  
208 Wells Street  
MILWAUKEE WIS

## Repaired Contractors' Equipment

### STEAM SHOVELS

- 1—Bucyrus 35-B, on caterpillar traction, full revolving, with 1½-yard and 1¼-yard dipper.
- 1—Bucyrus 70-C, 2½-yard dipper.
- 1—Marion 70, 2½-yard dipper.
- 1—Eric Type "B," full revolving, ¾-yard dipper.

### LOCOMOTIVES

- 2—18-ton 10x16" Dinkeys, 36" gauge.
- 2—15-ton 9x14" Dinkeys, 36" gauge.
- 2—10-ton 7x12" Dinkeys, 36" gauge.

### CARS

- 20—12-yard Western, air-dump, standard gauge.
- 175—4-yard Western, 36" gauge, wood and steel beam.
- 1—Western Spreader, hand operated, 36" gauge.

### HOISTS, DERRICKS, BOILERS, CONCRETE MIXERS, Etc.

We have a large stock of thoroughly repaired construction equipment of all kinds ready for immediate shipment.

**H. Kleinhans Company**  
Union Arcade  
PITTSBURGH, PA.

## HOISTING ENGINES

- 1—Lidgerwood, 14x18, D. C., three tandem drum, suitable for cableway.
- 1—Shannon, 7¼x10, D. C., D. D., with boiler.
- 1—Mundy, 6¼x10, D. C., D. D., skeleton.
- 2—Mundy, 6¼x10, D. C., D. D., with boilers.
- 1—National, 5½x10, D. C., D. D., with boiler.
- 1—Mundy, 8x12, double cylinder, three tandem drums, butt strapped, triple riveted, boiler, independent Mead Morrison 4½x6 swinging engine, equally as good as new.

## STATIONARY ENGINE

- 1—350 H. P. Green Slide Valve Engine, equally as good as new, size 22"x48" wheels 16"x32".

## BOILERS

- 3—American-built, Scotch type marine boilers, 12'6" dia. by 20' long, double end, three corrugated furnaces each end, 160 lbs. steam.
- 1—350 H. P., horizontal return tubular Boiler, 125 lbs. steam.

## ANCHORS

- 10—New mushroom Anchors, 5000 lbs. each.

## PIPE

- 6000 ft., strictly first-class 6" wrought-steel Pipe, equally as good as new.
- 700 ft. strictly first-class 20" dia. steel-riveted flange Pipe, lengths 20' each.
- 400 ft., 24" dia., 30' lengths, equally as good as new.

## STEAM SHOVELS

- 1—65-ton Bucyrus, 2½-yd. dipper, standard gauge.
- 1—No. 1 Thew Traction Steam Shovel, ¾-yd. dipper.

## CENTRIFUGAL PUMPS

- 1—Morris No. 12, 14" suction, 12" discharge, direct connected to horizontal engine, 18x10, 4500 gallons capacity per minute.
- 34—Standard gauge car trucks, four wheel; wheels 34" dia., in first-class second-hand condition.

## RAILS

- We have a large tonnage of all weight rails from 20 to 100 lb. relayers; pass any inspection.

**Henry A. Hitner's Sons Co.**  
Station K. Philadelphia, Pa.

## Special Attention! Locomotive Cranes, Cars, Steam Shovels, Locomotives, Etc.

### FOR PRACTICALLY IMMEDIATE SHIPMENT

- 1—40-ton, 8-WHEEL INDUSTRIAL WORKS LOCOMOTIVE CRANE. Equipped with 50-ft. Boom, etc. This is a splendid large capacity Locomotive Crane, used so very little it is hardly worth mentioning. Just like new. IMMEDIATE SHIPMENT.
- 1—25-ton, 8-WHEEL INDUSTRIAL WORKS LOCOMOTIVE CRANE. Equipped with 50-ft. Boom, etc. This is a very popular type Crane, ACTUALLY USED LESS THAN 60 DAYS, and absolutely just like new. IMMEDIATE SHIPMENT.
- 1—15, 20-ton, 8-WHEEL BROWN HOIST LOCOMOTIVE CRANE. Equipped with 50-ft. Radius Boom, etc. This is also a well-known make and type of Crane, used very little in actual service. Finest kind condition. PROMPT SHIPMENT right out of our Chicago works.
- 1—15-ton, 4-WHEEL BROWNING LOCOMOTIVE CRANE. Equipped with 40-ft. Radius Boom, etc. This Crane little used and coming out of our Chicago shops in A-1 condition for PROMPT SHIPMENT.
- 1—10-ton, 4-WHEEL INDUSTRIAL WORKS LOCOMOTIVE CRANE. Equipped with 40-ft. Radius Boom, etc. Very fine machine, coming right out of the shops. PROMPT SHIPMENT.
- Several CLAM SHELL BUCKETS, various capacities from one-half cubic yard to two cubic yards—Hayward, Browning, Brown Hoist and McMyler manufacture. Some of these Clam Shell Buckets have been actually used less than thirty days. Absolutely good as new. IMMEDIATE SHIPMENTS.
- 1—70 C, BUCYRUS STEAM SHOVEL, strictly modern machine, with extra long Boom, 38 ft. in length, and extra long Dipper Arm, 56 ft. in length, ESPECIALLY ADAPTED FOR COAL STRIPPING. Mounted on Standard-Gauge, 8-Wheel Railroad Trucks; 2 cubic-yd. Dipper, etc. This STEAM SHOVEL has been used so little it is hardly worth mentioning. Absolutely just like new. All ready for IMMEDIATE shipment and service.
- 15—80,000 capacity, 36-ft. GONDOLA RAILROAD CARS, M. C. B. and I. C. C. equipment, coming right out of our works. PROMPT SHIPMENTS. These cars are especially desirable purchases.
- 2—STANDARD GAUGE COMBINATION PASSENGER AND BAGGAGE COACHES. For PROMPT SHIPMENT right out of our Chicago works.
- 1—40-ton, 15x24, Standard-Gauge, Four-Driver BALDWIN SADDLE-TANK SWITCHING LOCOMOTIVE, for PROMPT delivery right out of our shops. This very fine Locomotive, PROMPT shipment.

ALSO CONSIDERABLE OTHER EQUIPMENT. ALL QUOTATIONS SUBJECT TO PRIOR SALES.  
PLEASE TELEGRAPH, TELEPHONE OR WRITE US YOUR REQUIREMENTS.

## A. C. TORBERT

Locomotive Cranes, Cars, Locomotives, Steam Shovels, Etc.

Continental and Commercial Bank Building CHICAGO, ILLINOIS  
SHOPS AND STORAGE YARDS AT CHICAGO



## Contractors' Machinery FOR SALE

- 1 Thew Shovel, 5/8-yd. bucket, mounted on standard gauge trucks.
- 1 Revolving Jib Crane, boom 75', mast 82', with 8 1/2"x10 D. C. D. American hoisting engine, complete with guy lines.
- 1 1400 square ft. Wheeler Condenser, with vacuum pump and connections.
- 1 15"x8" Screw-Cutting Lathe.
- 1 24"x16" G. W. Fields Lathe.
- 1 10"x13" Mundy D. C. D. Hoisting Engine.
- 1 8 1/2"x10 Lidgerwood D. C. D. Hoisting Engine.
- 2 7x10 Lambert D. C. D. Hoisting Engines.
- 1 6 1/2"x10 Lidgerwood D. C. S. D. Hoisting Engine.
- 1 8 1/2"x10 Flory D. C. D. Hoisting Engine.
- 1 7x10 Mundy D. C. D. Hoisting Engine.
- 1 2 1/2-yd. Ransome Concrete Mixer, with and without engine and buckets.
- 1 17x24 Atlas Engine.
- 1 14x20 Sturtevant R. H. Engine.
- 1 22x26 Stearns R. H. Engine.
- 1 60 H. P. New York Safety C. C. Automatic Engine.
- 1 12"x12" O. & S. Vertical Engine with out-board bearing.
- 1 5 1/2"x5 1/2" York High-Speed Automatic Engine.
- 10 266 H. P. B. & W. Water-Tube Boilers.
- 2 72"x18" Tubular Boilers, 150 lbs. pressure.
- 2 72"x16" Tubular Boilers, 125 lbs. pressure.
- 2 66"x16" Tubular Boilers, 120 lbs. pressure.
- 2 66"x16" Tubular Boilers, 100 lbs. pressure.
- 2 60"x22" Tubular Boilers, 110 lbs. pressure.
- 2 54"x14" Tubular Boilers, 100 lbs. pressure.
- 1 Internally-Fired Boiler, 8"x14", 125 lbs. pressure.
- 1 100 H. P. Marion Firebox Boiler, 125 lbs. pressure.
- 1 25 H. P. Vertical Boiler, 150 lbs. pressure.
- 1 17x24 Baldwin Rod Locomotive, 56 1/2" gauge.
- 1 10x16 Baldwin Rod Locomotive, 36" gauge.
- Other sizes Locomotives, different types and gauges.
- 1 Chambersburg 800-pound Steam Hammer.
- 1 30"x30"x8" American Planer.
- 1 150-ton Hydraulic Press.
- All sizes and types of pumps, sawmill machinery of every description.
- 1 Complete Sash, Door and Blind Factory.
- 1 Complete Sprinkler System, with tower and tank.

**MACHINERY EXCHANGE CO.**  
NEW ORLEANS, LA.

## Two 55-Ton, Std. Gauge CLIMAX LOCOS

Perfect order; 180 lbs. working pressure; everything like new; prompt delivery.

**H. M. BRUCH**  
400 Gridley Bldg. Syracuse, N. Y.

## Electric Concrete Mixers

Three second-hand No. 2 Marsh-Capron Rail Track Concrete Mixers with pressure water tanks, power side loaders and 10 H. P. A. C. 220-volt induction motors, mounted on trucks. Shop Nos. 699, 874, 875.

Two second-hand No. 2 Milwaukee Concrete Mixers with open-style water tanks, power side loaders, auxiliary hoist on end of mixer and 15 H. P. A. C. 220-volt induction motors, mounted on trucks. Shop numbers 948 and 949.

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509-11 Wabash Bldg. PITTSBURGH, PA.

## FOR SALE Locomotives

(Standard and Narrow Gauge)

### CRANES

### STEAM SHOVELS

### FROGS AND SWITCHES

### CARS—All Descriptions

**AMERICAN RY. EQUIPMENT CO.**  
Diamond Bank Bldg. PITTSBURGH, PA.

## ELECTRIC TRAVELING CRANE FOR SALE

1—Alfred Box 4-motor, 25-ton Crane with 5-ton auxiliary Hoist, 52' span, 220 volt, D. C., in good working order, delivery sixty days.

**Henry A. Hitner's Sons Co.**  
Station K  
PHILADELPHIA, PA.

## Immediate Shipment

### Hoists

Electric, Gasoline and Steam; all sizes.  
6 H. P. Novo Gasoline Handy Hoist.  
4 to 15 H. P. Novo Kerosene, sing. and D. D.  
16 H. P. D. C. D. D. Byers Steam.  
6x8 S. C. S. D. with Boiler.  
5 and 7 1/2 H. P. Revers. Brick Hoist, electric.

### Concrete and Hot Mixers

1-Bag Batch Milwaukee Steam, power loader, 1/2 yd. Milwaukee, belt drive.  
No. 131 Smith 1 1/2 yd. cap. Batch Hopper, like new, with steam or electric power.  
2-Bag Batch Koehring Steam Paver.  
2-Bag Batch Marsh-Capron Steam Paver.  
2-Hot-Paving Mixers.

### Motors and Oil Engines

90 K. W. G. E. 3-P. 60 C. 480 V. Generator.  
Exciter, Switchboard, etc. \$850.  
25 H. P. I. H. C. Titan Oil Engine, \$750.  
3 to 15 H. P. New Novo Kerosene Engines.  
32 H. P. Heer Kerosene, 2-cycle, on trucks.

### For Road and Quarry

Sullivan Class VW-61 Duplex Channeller.  
Thew 5/8-yd. Steam Shovel.  
5-ton Kelly Tandem Roller, \$1100.  
10-ton 3-wheel Huber Steam, scarifier attached, \$1750.  
Kinney Road-Oil Gasoline Pump.  
No. 2 Climax Crusher, 10x22 1/2 Elevator, etc., \$750.  
11x26 Ft. Wayne Crusher, \$500.  
10x16 Sturtevant Balanced Steel Rolls, \$500.  
8-3 1/2 yd. Fry Trailers, each, \$75.

### Dragline Excavator

No. 1 Monaghan 1-yd. Dragline.

### Miscellaneous

Oshkosh and Novo Saw Rigs.  
Emerson, Jr., 4-in. Discharge Steam Pump.  
Concrete Tower Buckets, Hoppers, Chutes.  
Bottom Dump and Tip-over Buckets.  
5 1/2 ft. 1 1/2" Wire Rope, \$100.  
2-No. 35 2 1/2-ton Brownhoist Hand Winches.  
Schluter Electric Floor Surfer.

## ROY C. WHAYNE SUPPLY CO.

Louisville Kentucky

### LOCOMOTIVES

1—Rodgers Standard Gauge Saddle Tank Locomotive, with 16x22" cylinders, 8-ft. wheel base; weight, 40 tons; working order of boiler, 150 lbs. anywhere. M. C. B. equipment, direct from shops.  
1—Porter Locomotive, 4-wheel, saddle tank, 36" gauge, 10x16" cylinders; weight, 20 tons; 140 lbs. steam pressure.  
1—Porter Locomotive, 4-wheeled saddle tank, 36" gauge, 9x14" cylinders; weight, 14 tons; 140 lbs. steam pressure.  
1—Koppel Locomotive, 21" gauge, 8-ton.  
1—Shay-Gear Locomotive, 21" ga., 13-ton.

### CARS

20—Western 4-yd. 36" gauge Dump Cars; steel frames and bottoms.  
10—Western 12-yd. Standard Ga. Dump Cars.  
1—Oliver Spreader, standard gauge.  
40—Koppel Steel Cars, 1 1/2 yd., 21" gauge.

### SHOVELS

1—Marion Model 60, 2 1/2 yd. dipper.  
1—Bucyrus 70 C., 38-ft. boom, 54-ft. dipper stick.  
1—Bucyrus 18 B Traction, 3/4 yd. dipper, also 40-ft. steel boom and 3/4 yd. clam-shell bucket. Makes a fine crane.  
1—Marion Model 28, 3/4 yd. traction, shop number above 3290.  
1—Thew Type O, 3/4 yd., shop number above 950.

### MISCELLANEOUS

1—2 yd. Marion Dipper Dredge, hull 90'x28'x7'.  
Electric Light Plant; 16'x30' Sectional House Boat; all in first-class condition.  
1—Austin Steam-Power Trench Machine, type "O."  
6 miles Koppel Track, 21" gauge.

**LEONARD F. SMITH**  
LA PORTE, IND.

## Rails Logging Equipment FOR SALE

20 Log Cars, standard gauge, splendid condition.  
One 40-ton Rod Locomotive, standard gauge.  
One Lidgerwood Loader and Skidder combined, standard gauge.  
2500 tons 60-lb. Raylagers, with bars.  
Write or wire for prices.

**United American Iron & Steel Co.**  
750 Woolworth Bldg.

## LOCOMOTIVE CRANE

One 50-ton 8-wheel Industrial Wrecking Crane, perfect condition, immediate shipment.

All equipment offered our own property.

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**Contractors' Machinery & Supply Co.**

509-11 Wabash Bldg. Pittsburgh, Pa.

**FIRST**—Get Bulletin 250—or, wire  
**ZELNICKER IN ST. LOUIS**  
Before buying or selling  
**RAILS**  
**LOCOMOTIVES — CARS — TANKS**  
**MACHINERY, PILING, ETC.**  
What have you for sale?

### FOR SALE

1—Ingersoll-Rand Compressor, capacity 1400 cu. ft.  
1—Return Tubular 50 H. P. Boiler.  
1—Ingersoll-Rand Compressor, capacity 800 cu. ft.  
1—10-ton Buffalo-Pitts Road Roller.  
1—5-ton Tandem Roller.

Apply CLAIM DEPARTMENT, Unit d Sta'es Fidelity and Guaranty Co., Baltimore, Md.

## Standard Gauge Locomotive

50-ton 4-wheel American Saddle Tank, also extra tender if desired. Built 1910. Carries 165 lbs. steam pressure. Butt-joint boiler. Immediate shipment.

All equipment offered our own property.  
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**Contractors' Machinery & Supply Co.**

509-11 Wabash Bldg. Pittsburgh, Pa.

## Locomotive Crane

**FOR SALE**  
1—39' boom McMyler Electric Locomotive Crane with 1 1/4-yd. Bucket.  
**NATIONAL PRODUCTS CO.**  
East Liverpool, O.

## Locomotive Cranes

- 1—American, 10-ton, 4-wheel, 54' boom, single line.
- 1—Industrial, 10-ton, 4-wheel, 40' boom, double line, 1 yd. Climax Shell.

**MOORE BROS.**

39 S. La Salle St. Chicago, Ill.

## Locomotive Crane

One 15-ton 4-wheel McMyler, 40' boom, single drum, perfect condition. Rare bargain. All equipment offered our own property.

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509-11 Wabash Bldg. Pittsburgh, Pa.

## Tampa Machinery Exchange

TAMPA, FLA.

**Buy, Sell and Exchange Machinery of All Kinds**  
**WRITE US YOUR WANTS**

## HOFFMANN-SPROUL COMPANY

Widener Building, Philadelphia

## NEW IRON AND STEEL PRODUCTS

SCRAP AND LEFT-OVERS FROM IRON AND STEEL MANUFACTURED PRODUCTS

## LOCOMOTIVES

**IMMEDIATE SHIPMENT**  
**STANDARD GAUGE**

- 1—11x16 Baldwin Saddle Tank.
- 1—18x24 Baldwin Six-Wheel Switcher.
- 1—18-ton O. & S. Locomotive Crane, 8-wheel, M. C. B., for delivery in 45 days.
- 1—14x24 Davenport Saddle Tank, parallel, without boiler.
- 1—20-ton Shay.

## THE GEORGE B. CURD COMPANY

**Car and Locomotive Shops:**  
CINCINNATI, O.

**Branch Office:**  
ATLANTA, GA.

## Special—Immediate Delivery Machinery for Moving Materials

### STANDARD GAUGE LOCOMOTIVES

- 1 Porter 4-wheel 12 in. x 16 in. Saddle Tank, weighing 25 tons.
- 1 American 4-wheel 14 in. x 24 in. Saddle Tank, weighing 35 tons.
- 2 American Moguls, 18 in. x 24 in., square tender, weighing 55 tons.

### 36-INCH GAUGE LOCOMOTIVES

- 6 Porter 4-wheel 9 in. x 14 in. Saddle Tanks, Contractor's type.
- 2 Vulcan 4-wheel 9 in. x 14 in. Saddle Tanks, Contractor's type.
- 2 Vulcan 4-wheel 10 in. x 16 in. Saddle Tanks, Contractor's type.
- 1 Baldwin Consolidation 15 in. x 20 in., square tender, weighing 38 tons.
- 1 American Forney 10 in. x 16 in., weighing 25 tons, 2-4 type.

### HOISTING ENGINES (STEAM)

- 1 Flory 10 in. x 12 in., double cylinder, single drum, without boiler.
- 1 Flory 9 in. x 10 in., double cylinder, double drum, with boiler.
- 2 Stroudsburg 8 1/2 x 10 in., D. C. D., with boiler.
- 1 Flory 10 in. x 12 in., D. C. D., with boiler.

We also have several air compressors, air pumps, tanks, rock crushers, etc. Will rent a large portion of this equipment at reasonable rates.

**HOISTING MACHINERY COMPANY**  
50 Church Street  
NEW YORK CITY

- 1 Lidgerwood 8 1/2 x 10 in. D. C. D. D., parallel, without boiler.
- 1 Crook 8 1/2 in. x 12 in., D. C. D. D., without boiler.
- 1 Mundy 6 1/2 in. x 12 in., D. C. D. D., with boiler.

These hoists are all in fine shape, ready to go to work.

- 1 Steel Guy, 66' mast, 54' boom, complete, with guys, etc.
- 1 Steel Guy, 100' mast, 85' boom, complete, with all fittings.
- 1 Steel Stiff-Leg, 50' mast, 80' boom, complete, with all fittings.

Also, several wooden stiff-leg and guy derricks and travelers.

### LOCOMOTIVE CRANES

- 1 15-ton, 10' gauge, elec. operated, 45' boom, 1 1/2 yd. clamshell bucket.
- 1 15-ton Brown-Hoist, steam operated.
- 1 15-ton Brown-Hoist, 8-wheel, with magnet and generator.
- 1 4-wheel McMyler.

### BOILERS

- 1 125 H. P., locomotive type.

October 31, 1908  
A C  
NAT  
I. H.  
1030-32  
First-C  
40, 64, 6  
and Spik  
The An  
Mas  
12, 16, 2  
We are  
Rela  
5-10, 40-  
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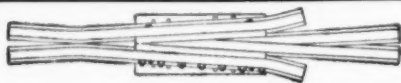
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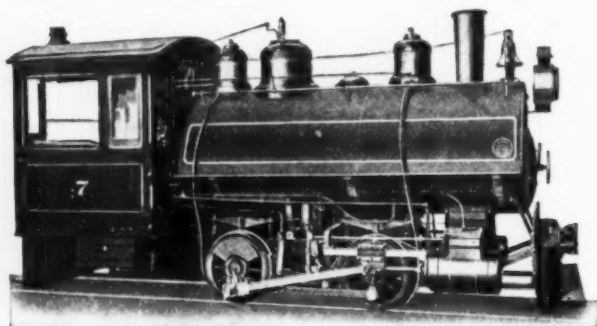
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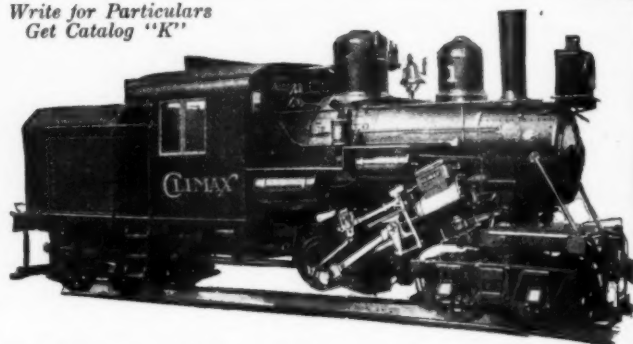
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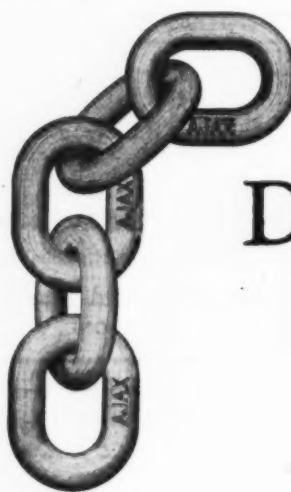


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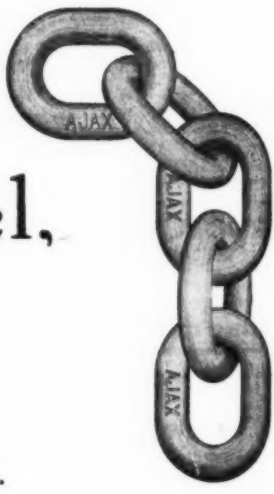
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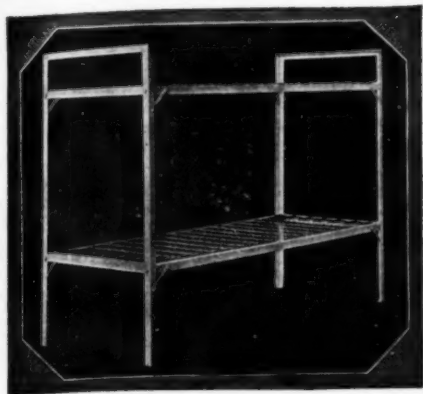
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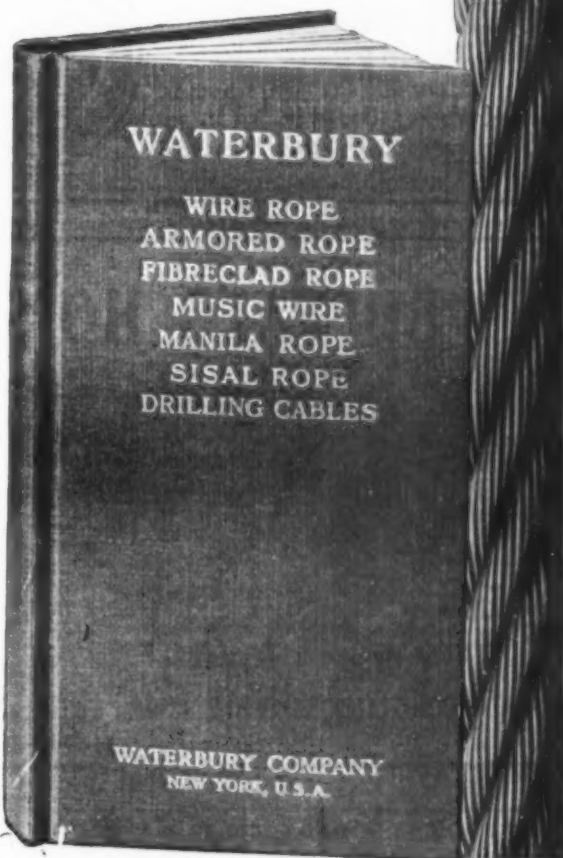
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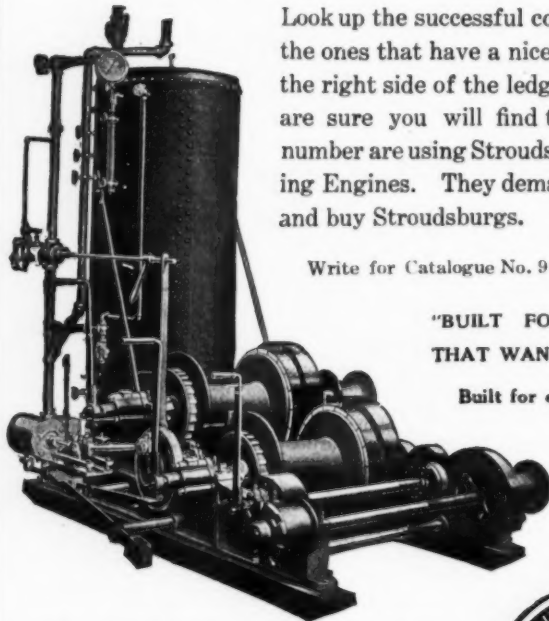
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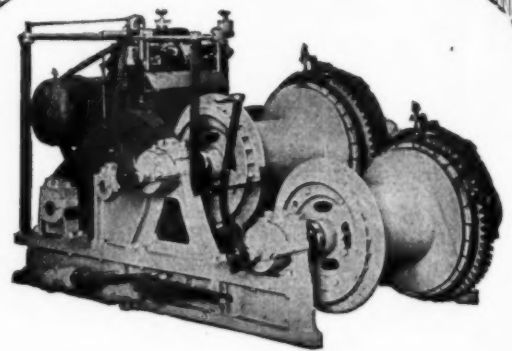
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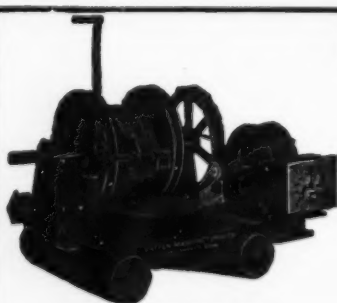
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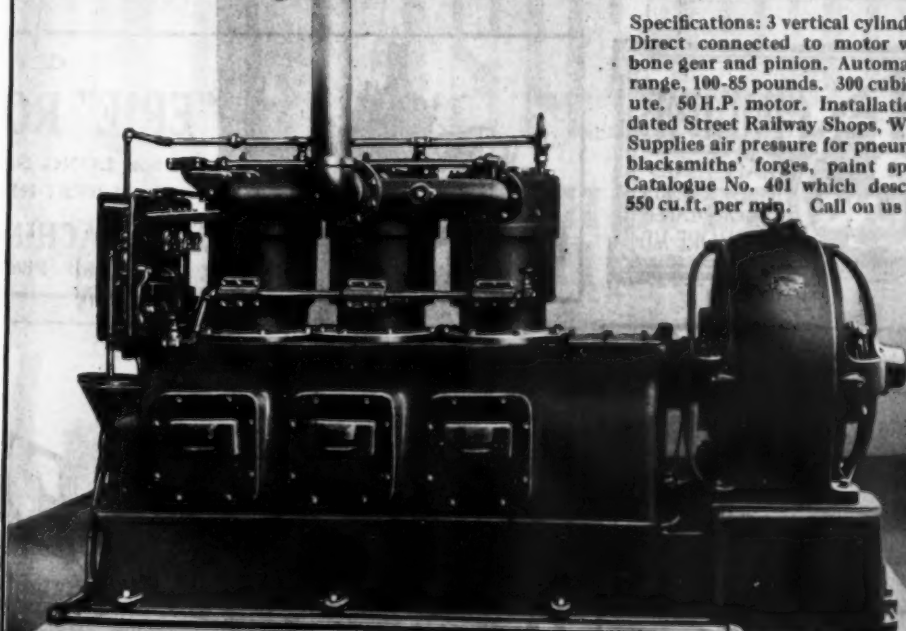
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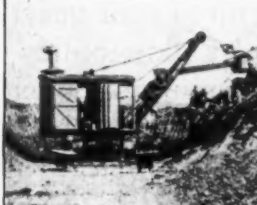
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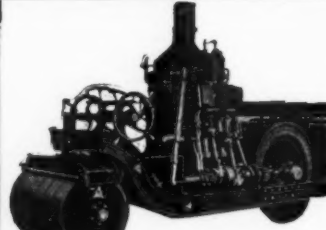
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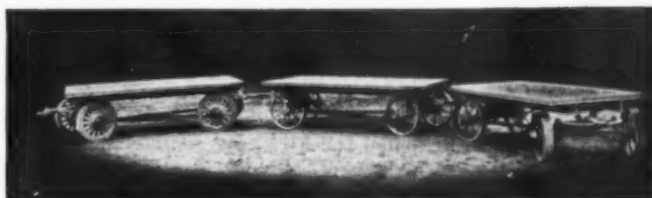
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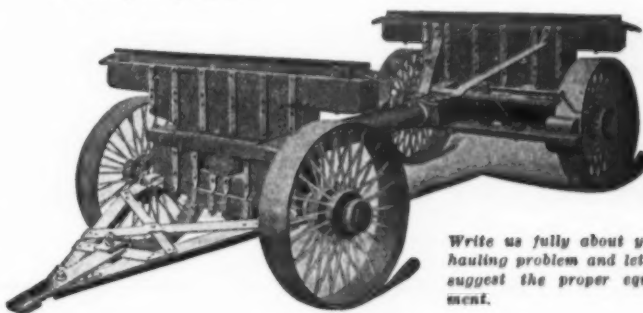
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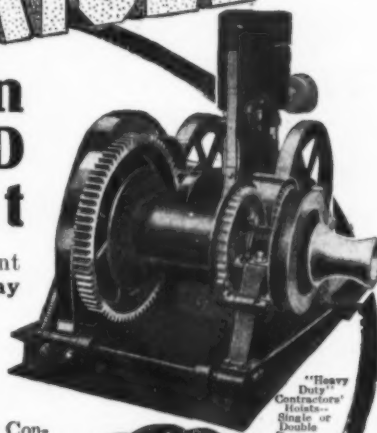
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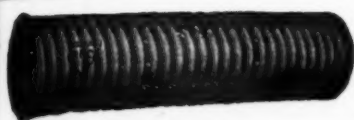
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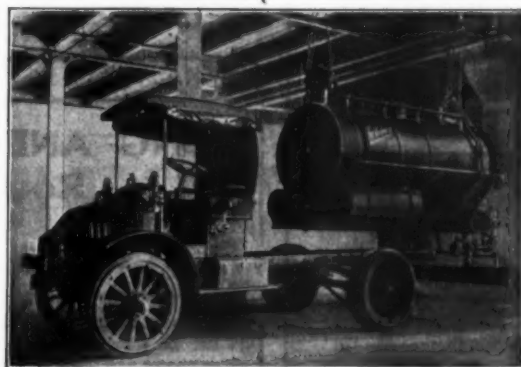
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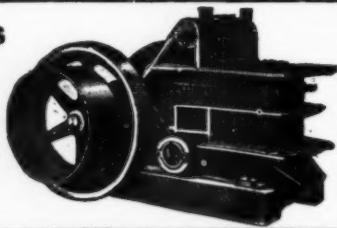
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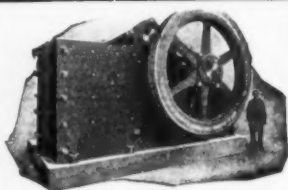
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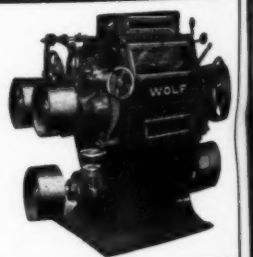
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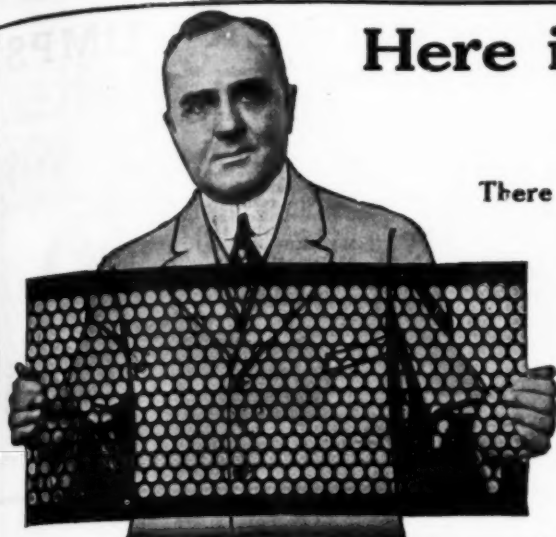
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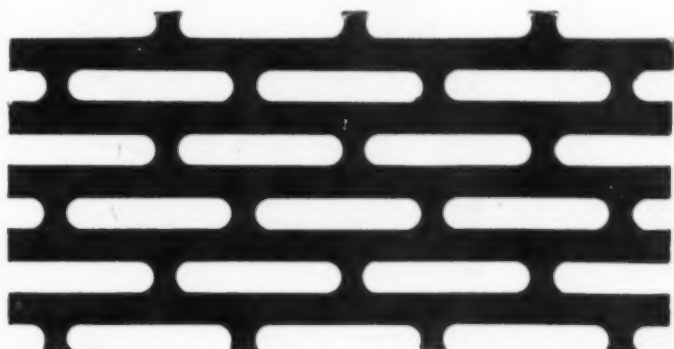
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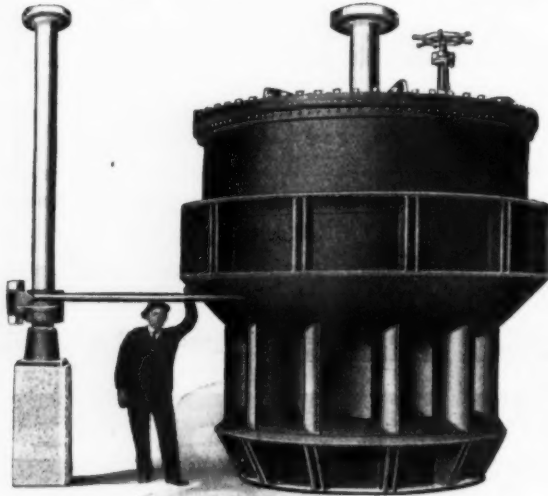
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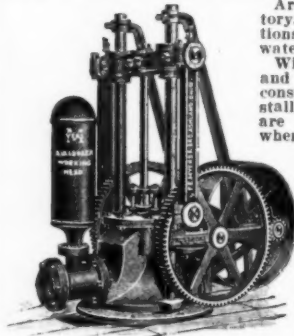
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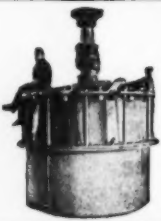
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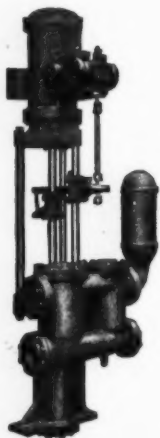
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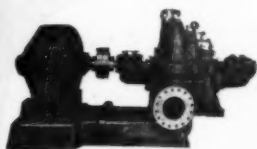
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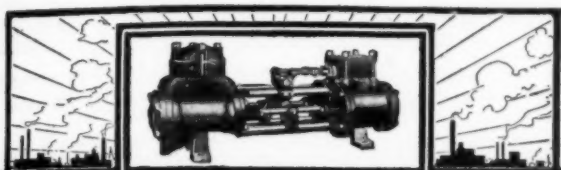
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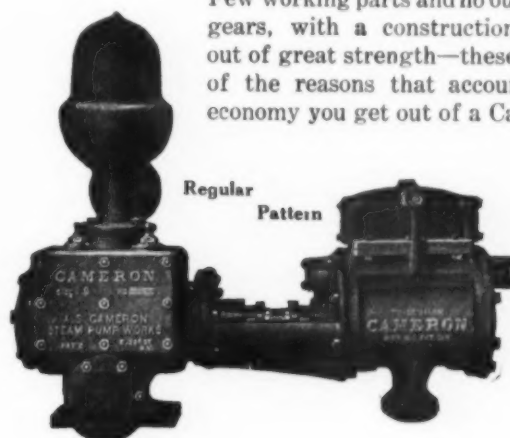
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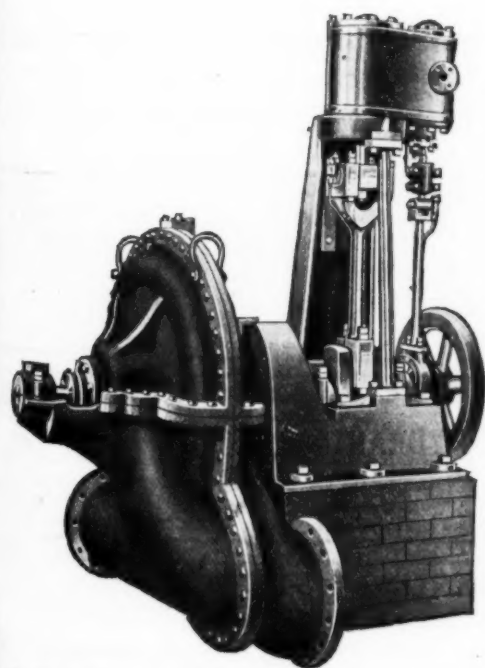


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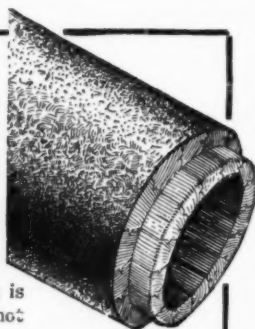
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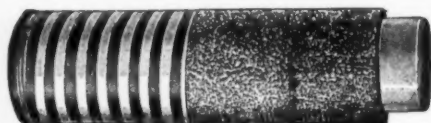
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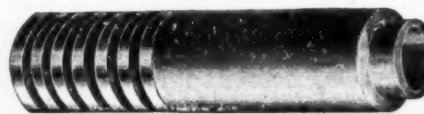
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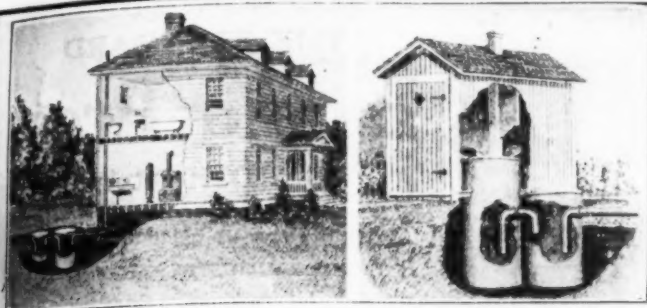
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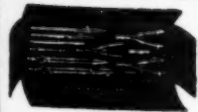
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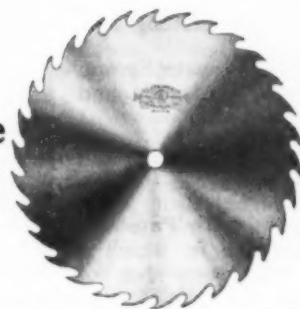
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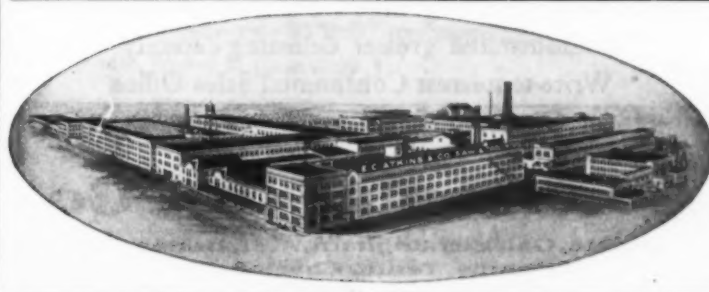
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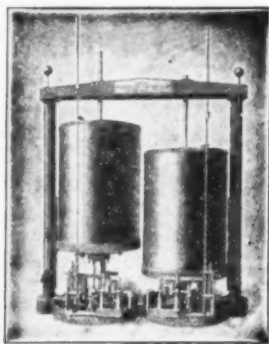
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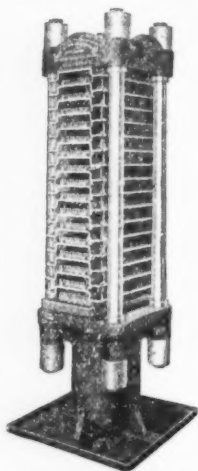
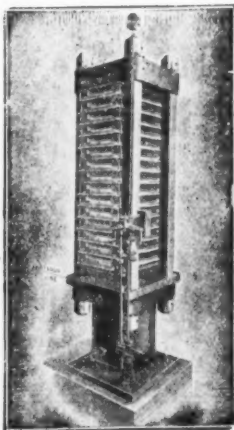
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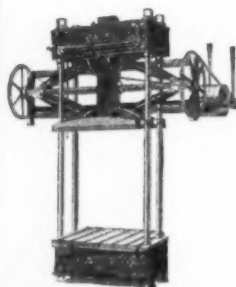
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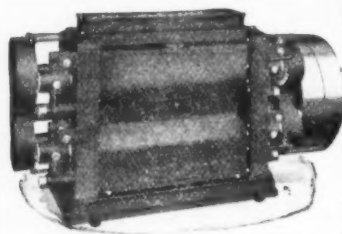
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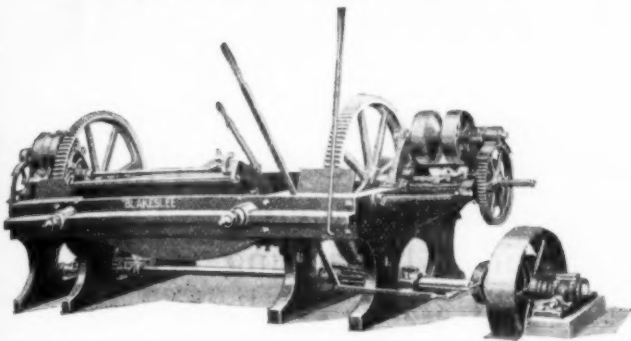
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**Central of Georgia  
Railway**

Cheap electric power, numerous undeveloped water-powers, good home markets and excellent shipping facilities. Therefore, manufacturing conditions are ideal.

Many of the cities on the Central of Georgia Railway occupy advantageous positions for distributing warehouses, and a number of the larger northern and eastern manufacturers supply their southeastern trade from branch houses in these cities.

Full and detailed information upon application.

**J. M. MALLORY, Industrial Agent**  
SAVANNAH, GEORGIA



## FLORIDA AS A CATTLE RAISING STATE

In this time of great food demand and food shortage, the following extract from the annual address of the President of the Florida Live Stock Association is of commanding interest. The possibilities afforded by the State of Florida for adding materially to the Nation's supply of meat and dairy products are thus set forth:

"But disquieting as are the times, the business of the stock raiser in America, and particularly in Florida, was never on so sound a basis as today, never so full of promise.

"The exhaustion of domestic animals throughout Europe and the increasing shortage in our own country are creating a demand which will insure for many years to come a profitable market for all the beef, pork, mutton, and dairy products which we can supply.

"Definitely, I think it can be said that there can be no danger of overproduction in these lines for a long time to come. And for this industry, which we may perhaps properly call the ancient, fundamental, necessary, stable, wholesome, honorable and delightful of all the occupations in which men are engaged, Florida has advantages of soil, climate, rainfall and location greater on the whole than those enjoyed by any other State of the American Union. This is being recognized in increasing measure, far and wide.

"The eyes of discerning and experienced men are being turned this way as never before. Inquiries by mail and visits of exploration from the North, the West and the Southwest, have never before been so numerous as during the year which we are reviewing, and our own people are awakening to the opportunities which lie all about them, unused and inviting.

"There are vast areas of cheap and hitherto waste lands in every part of the State, lying open the year 'round to the genial and fructifying rays of a semi-tropical and sub-tropical sun, which need only the expenditure upon them of money and labor to fit them for the support of herds and flocks greater than any other region can maintain.

"We have every reason, as we face the new year to take courage and to gird ourselves for the task of turning into reality these gracious possibilities which nature has spread about us with a lavish hand."

This Company will be glad to supply full information to inquirers.

### MODEL LAND COMPANY OF THE FLAGLER SYSTEM

JAMES E. INGRAHAM, President

ST. AUGUSTINE, FLA.

# Building A Complete Cycle of Chemical Industries on the Clinchfield Railway

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## ADVANTAGES:

**1—LOCATION:** The Carolina, Clinchfield and Ohio Railway traverses the territory known as the Southern Appalachian Region, between Elkhorn City, Kentucky, and Spartanburg, South Carolina. A study of the geographical and geological maps will disclose the important and logical situation of the Clinchfield Railway with respect to raw materials as well as distribution facilities for manufactured products.

**2—RAW MATERIALS:** It is doubtful if any section of the country is so bountifully blessed with so great a variety of raw products of commercial value. Its great coal fields, and deposits of Iron Ore, Kaolin, Feldspar, Mica, Zinc, Ochre, Asbestos, Chrome, Limestone, Dolomite, Quartz, and other minerals of lesser importance, make this region truly a MINERAL PARADISE. All of these are supplemented by a vast forest, the by-products of which offer a supply of raw materials for chemical plants, such as pulp mills, extract and wood distillation plants.

**3—BUILDING MATERIALS:** New industries can be assured of quick and low-cost construction because the necessary building materials are manufactured on the Clinchfield Railway, such as high-grade Portland Cement, brick, lime, tile, lumber, etc.

**4—LABOR:** The supply of labor is of the sturdy Anglo-Saxon type, and, as a whole, is very contented on account of the fine climate and favorable living conditions. It is skillful and intelligent, becoming readily adapted to new conditions, and intricate processes requiring the greatest care. This has been demonstrated by the experience of the large manufacturing plants already established along the Clinchfield Railway.

**5—CHEAP POWER:** The power resources of the Clinchfield are hardly to be exceeded anywhere in the country. The coal fields being developed on the north end of the road guarantee an ample and continuous supply of coal, coke and gas. In addition to these coal resources the road possesses ample power facilities in the several large rivers that drain this territory.

The cheap steam and hydro-electric power possibilities coupled with the raw materials at hand, make this region unusually attractive to the electrochemical industries.

**6—DISTRIBUTION FACILITIES:** The physical connections of the Clinchfield Railway with important trunk lines on the north and south, and east and west, give the Clinchfield Territory superior features both from the standpoint of assembling raw materials and the distribution of finished products. This territory is in efficient touch with all portions of the country.

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For Complete Information Address

## Carolina, Clinchfield and Ohio Railway

JOHNSON CITY, TENNESSEE



**ABRASIVE MATERIALS.**

Vitrified Wheel Co., Westfield, Mass.

**ACCOUNTANTS.** (Certified Public.)

Baltimore Audit Co., Baltimore, Md.

Black &amp; Co., Baltimore, Md.

Cooley &amp; Marvin Co., Boston, Mass.

**ACCUMULATOR.** (Hydraulic.)

The French Oil Mch. Co., Piqua, Ohio.

**ACID EGGS.**

Valley Iron Works, Williamsport, Pa.

**AGENTS.** (Manufacturers.)

Agency Service Corporation, Washington, D. C.

Hammond-Bryd Co., The, Birmingham, Ala.

Maple, Moore &amp; Kirkwood, Washington, D. C.

National Manufacturers Bureau, Wash., D. C.

**AGRICULTURISTS.** (Consulting.)

Morris, Stanley F., New Orleans, La.

**AIR CONDITIONING APPARATUS.**

Carrier Engineering Corp., New York, N. Y.

**AIR COMPRESSORS.** (Stationary and Portable.)

Chicago Pneumatic Tool Co., Chicago, Ill.

De La Vergne Machine Co., New York, N. Y.

General Electric Co., Schenectady, N. Y.

Hardy-Tynes Mfg. Co., Birmingham, Ala.

Ingersoll-Rand Co., New York, N. Y.

New Engine Co., Lansing, Mich.

Sullivan Machinery Co., Chicago, Ill.

Westinghouse Traction Brake Co., Wilmerding, Pa.

Worthington Pump &amp; Mch. Corp., New York, N. Y.

**ALUMINUM PRODUCTS.** (Bar, Sheet, Tube.)

Aluminum Company of America, Pittsburgh, Pa.

Stimpson Co., Edinboro, Pa., Brooklyn, N. Y.

**AMMONIA VALVES AND FITTINGS.**

Frick Co., Waynesboro, Pa.

**ANTI-FRICTION METALS.**

Bailey-Lohby Co., Charleston, S. C.

Dodge Sales &amp; Engineering Co., Mishawaka, Ind.

**APPRAISERS.**

American Appraisal Co., The, Milwaukee, Wis.

**ARCHITECTS.**

Milburn, Heister &amp; Co., Washington, D. C.

Silline, J. E., Greenville, S. C.

**ARCHITECTS.** (Landscape.)

Burman, Geo., Washington, D. C.

Hoffman, Leon, Atlanta, Ga.

**ARCHITECTS' SUPPLIES.**

Starratt Co., L. S., Athol, Mass.

Weber &amp; Co., E., Philadelphia, Pa.

**ARCHITECTURAL IRON WORK.**

Bellevue Iron &amp; Wire Wks., J. E., Detroit, Mich.

Chattanooga Mfg. &amp; Fdy. Co., Chattanooga, Tenn.

Chesapeake Iron Works, Baltimore, Md.

Dietrich Brothers, Baltimore, Md.

Snead Architectural Iron Wks., Louisville, Ky.

**ARMATURE WINDING.**

Charlotte Electric Repair Co., Charlotte, N. C.

**ART GLASS.**

Hinswanger &amp; Co., Memphis, Tenn.

**ASBESTOS PRODUCTS.**

Acme Asbestos Covering &amp; Sup. Co., Chicago, Ill.

Dominion Asbestos and Rubber Corporation, New York, N. Y.

Asbestos Company, Pittsburgh, Pa.

Johns-Manville Co., H. W., New York, N. Y.

**ASBESTOS ROOFING AND SIDING.**

Asbestos Company, Pittsburgh, Pa.

Dominion Asbestos and Rubber Corporation, New York, N. Y.

**ASPHALT.**

Gulf Refining Co., Pittsburgh, Pa.

Standard Oil Co. of La., Baton Rouge, La.

Texas Co., The, New York, N. Y.

**ASPHALT FILLER.**

American Ballast Co., Knoxville, Tenn.

**ASPHALT HEATERS.**

Kinney Mfg. Co., Boston, Mass.

**ASPHALT MIXERS.**

Erie Machine Shops, Erie, Pa.

**ASPHALT PAVING CONTRACTORS.**

Southern Paving Co., Chattanooga, Tenn.

**ASPHALT PAVING PLANTS.**

Cummer &amp; Son Co., F. D., The, Cleveland, Ohio.

Ruzick-Coles Engineering Co., York, Pa.

**AUCTIONEERS.**

Conant &amp; Co., J. E., Lowell, Mass.

Freeman &amp; Co., Samuel T., Philadelphia, Pa.

**AUDITORS.**

Baltimore Audit Co., Baltimore, Md.

Black &amp; Co., Baltimore, Md.

Cooley &amp; Marvin Co., Boston, Mass.

**AUTOMOBILE ACCESSORIES.**

Bailey-Lohby Co., Charleston, S. C.

Booth Felt Co., Inc., Brooklyn, N. Y.

**AXLES.** (Car and Locomotive.)

American Steel Export Co., New York, N. Y.

Camden Forge Co., Camden, N. J.

**BACKFILERS.**

Amer. Cement Mch. Co., Inc., Keokuk, Iowa.

**BAGS.** (Second-hand.)

Roanoke Scrap Iron &amp; Metal Co., Roanoke, Va.

**BALLAST.** (Railroad.)

American Ballast Co., Knoxville, Tenn.

Weston &amp; Brooker Co., Columbia, S. C.

**BANKERS AND BROKERS.**

Delaware Registrat'n Trust Co., Wilmington, Del.

Edwards, Geo. H., New York, N. Y.

Electric Bond &amp; Share Co., New York, N. Y.

Hornblower &amp; Weeks, New York, N. Y.

Mercantile Trust &amp; Deposit Co., Baltimore, Md.

Nuveen &amp; Co., John, Chicago, Ill.

Powell, Garard &amp; Co., Chicago, Ill.

Spitzer &amp; Co., Sidney, Toledo, Ohio.

Slayton &amp; Co., W. L., Toledo, Ohio.

**BANKS.**

Bank of Alabama, Ensley, Ala.

First National Bank, Birmingham, Ala.

First National Bank, Richmond, Va.

Maryland Trust Co., Baltimore, Md.

Merchants-Mechanics First Nat. Bk., Balto., Md.

National Exchange Bk. of Balto., Baltimore, Md.

Union Trust Co., Chicago, Ill.

BANK AND OFFICE RAILINGS AND GRILLES. (Iron.)

Bolles Iron &amp; Wire Works, J. E., Detroit, Mich.

Dow Wire &amp; Iron Works, Louisville, Ky.

Dufur &amp; Co., Baltimore, Md.

Dufur, Baggett &amp; Co., Baltimore, Md.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Meyers Mfg. Co., F. J., Hamilton, Ohio.

Newman Mfg. Co., The, Cincinnati, Ohio.

BARGES. (Steel.)

American Bridge Co., New York, N. Y.

BARIUM PRODUCTS. (Binoxide, Chloride, Hydrate, Nitrate, etc.)

Rollin Chemical Co., Inc., Charleston, W. Va.

BARIUM SULPHATE. (Precipitated White Flx.)

Rollin Chemical Co., Inc., Charleston, W. Va.

BAR BENDERS.

Koehring Machine Co., Milwaukee, Wis.

BAR CUTTERS.

Koehring Machine Co., Milwaukee, Wis.

BAR IRON. (Refrined and Galvanized.)

Abern Steel Co., New York, N. Y.

Ames &amp; Co., W. Jersey City, N. J.

Carnegie Steel Co., Pittsburgh, Pa.

Lackawanna Steel Co., Lackawanna, N. Y.

**BARS.**

Ames &amp; Co., W. Jersey City, N. J.

**STEEL RODS, FLATS AND SQUARES.**

Abern Steel Co., New York, N. Y.

Camden Forge Co., Camden, N. J.

Concrete Steel Co., New York, N. Y.

Gulf States Steel Co., Birmingham, Ala.

Sueve's Steel Co., Williamsport, Pa.

Tumball Steel Co., Warren, Ohio.

**BARS, WIRE, WIRE FABRIC, ETC. (For Reinforced Concrete.)**

Cincinnati Iron &amp; Steel Co., Cincinnati, Ohio.

Concrete Steel Co., New York, N. Y.

Corrugated Bar Co., Buffalo, N. Y.

General Fireproofing Co., Youngstown, Ohio.

Hoffman &amp; Co., R. C., Inc., Baltimore, Md.

Jones &amp; Laughlin Steel Co., Pittsburgh, Pa.

Laclede Steel Co., St. Louis, Mo.

Trucon Steel Co., Youngstown, Ohio.

**BAUXITE.**

Southern Minerals Corp., Boston, Mass.

**BEARINGS.**

Edna Brass Mfg. Co., Cincinnati, Ohio.

**BRASS AND BRONZE.**

Brookhaven Pressed Brick &amp; Mfg. Co., Brookhaven, Miss.

Kingsport Brick Corp., Kingsport, Tenn.

**GRAPHITE AND BRONZE.**

Round Brook Oil-less Brng. Co., Bound Brook, N. J.

**OILLESS.**

Round Brook Oil-less Brng. Co., Bound Brook, N. J.

**METALLIC CO., LONG ISLAND CITY, N. Y.****ROLLER.**

Hyatt Roller Bearing Co., New York, N. Y.

**BELTING.**

Bailey-Lohby Co., Charleston, S. C.

Baltimore Belting Co., Baltimore, Md.

Bradford Belting Co., Cincinnati, Ohio.

Chesapeake Belting Co., Baltimore, Md.

Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.

Dread Oak Belting Mfg. Co., Baltimore, Md.

Gandy Belting Co., Baltimore, Md.

Goodrich Co., B. F., Akron, Ohio.

Goodyear Tire &amp; Rubber Co., Akron, Ohio.

Graton &amp; Knight Mfg. Co., Worcester, Mass.

Hahn Belting Co., Philadelphia, Pa.

Schieren Co., Chas. A., New York, N. Y.

Smith-Courtney Co., Richmond, Va.

**CHAIN.**

Caldwell &amp; Son Co., H. W., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Co., Philadelphia, Pa.

Morse Chain Co., Ithaca, N. Y.

**BELT CEMENT.**

Du Pont de Nemours &amp; Co., E. I., Wilmington, Del.

Graton &amp; Knight Mfg. Co., Worcester, Mass.

Schieren Co., Chas. A., New York, N. Y.

**BELT CONVEYORS.**

Alvey-Ferguson Co., Inc., Cincinnati, Ohio.

Bartlett &amp; Snow Co., The, C. O., Cleveland, O.

Jeffrey Mfg. Co., Columbus, Ohio.

Portland Machinery Co., Inc., Passaic, N. J.

Rollins Conveying Mch. Co., New York, N. Y.

Webster Mfg. Co., Tiffin, Ohio.

**BELT DRESSING.**

Dixon Crucible Co., Joseph, Jersey City, N. J.

Gandy Belting Co., Baltimore, Md.

Graton &amp; Knight Mfg. Co., Worcester, Mass.

Schieren Co., Chas. A., New York, N. Y.

**BELT LACING. (Leather.)**

Graton &amp; Knight Mfg. Co., Worcester, Mass.

Schieren Co., Chas. A., New York, N. Y.

**BERTHS AND BUNKS. (For Ships and Contrs.)**

Southern-Rome Co., Baltimore, Md.

**BICARBONATE SODA. (Sap Stain Lmbr. Dip.)**

Church &amp; Dwight Co., New York, N. Y.

Du Pont de Nemours &amp; Co., E. I., Wilmington, Del.

**BILLETS. (Basic Open Hearth.)**

Atlantic Steel Co., Atlanta, Ga.

Gulf States Steel Co., Birmingham, Ala.

**BLANK FIXE.**

Rollin Chemical Co., Inc., Charleston, W. Va.

**BLEACHING MATERIALS.**

Wolf &amp; Co., Jacques, Passaic, N. J.

**BLOCKS.**

Wright Mfg. Co., Lisbon, Ohio.

**CHAIN.**

American Creosote Works, New Orleans, La.

**BLOCK FILLEES. (Paving.)**

Barrett Co., New York, N. Y.

Standard Oil Co. of La., Baton Rouge, La.

**BLOWERS AND EXHAUST FANS.**

Buffalo Forge Co., Buffalo, N. Y.

Clara Fan Co., Kalamazoo, Mich.

Clinton-Fratt Co., The, Cincinnati, Ohio.

Durston Castings Co., Dayton, Ohio.

General Electric Co., Schenectady, N. Y.

Green Fuel Economizer Co., New York, N. Y.

National Blow Pipe &amp; Mfg. Co., New Orleans, La.

**BLOW PIPES.**

National Blow Pipe &amp; Mfg. Co., New Orleans, La.

Shreveport Blow Pipe &amp; S. I. Wks., Shreveport, La.

**BOILERS.**

Abendroth &amp; Root Mfg. Co., Newburgh, N. Y.

Ames Iron Works, Oswego, N. Y.

Babcock &amp; Wilcox Co., New York, N. Y.

Cape Fear Machine Works, Wilmington, N. C.

Casey-Hedges Co., Chattanooga, Tenn.

Chattanooga Boiler &amp; Tank Co., Chattanooga, Tenn.

Davis, J. F., Chicago, Ill.

Erie City Iron Works, Erie, Pa.

Harris Bros. Co., Chicago, Ill.

Hartley Boiler Works, Montgomery, Ala.

Houston, Stanwood &amp; Gamble Co., The, Chas., O.

Lombard Iron Works, Augusta, Ga.

Lookout Boiler &amp; Mfg. Co., Chattanooga, Tenn.

Malady Machinery Co., Jacksonville, Fla.

Mecklenburg Iron Works, Charlotte, N. C.

Murray Iron Works Co., Burlington, Iowa.

Schofield Iron Works, Macon, Ga.

Southern Boiler &amp; Tank Works, Memphis, Tenn.

Union Iron Works, Erie, Pa.

Walt &amp; Murdoch Co., Charleston, S. C.

Vogt Machine Co., Inc., Henry, Louisville, Ky.

Walsh &amp; Weldner Boiler Co., Chattanooga, Tenn.

Zelnicke Supply Co., Walter A., St. Louis, Mo.

BOILER COVERINGS.

Magnesia Association of America, Phila., Pa.

BOILER GRAPHITE.

Dixon Crucible Co., Joseph, Jersey City, N. J.

BOILER SEAM PROTECTOR.

National Boiler Protector Co., Dayton, Ohio.

BOLTS, NUTS, RIVETS, STUDS, WASHERS.

Ames &amp; Co., W. Jersey City, N. J.

Bethlehem Steel Co., South Bethlehem, Pa.

Frank, Jr., Henry, New York, N. Y.

Hoffman &amp; Co., R. C., Inc., Baltimore, Md.

Malady Machinery Co., Jacksonville, Fla.

Milton Mfg. Co., Milton, Pa.

Progressive Mfg. Co., Torrington, Conn.

Republic Iron &amp; Steel Co., Youngstown, Ohio.

Russell, Burdall &amp; Ward Bolt and Nut Co., Port Chester, N. Y.

Stimpson Co., Edinboro, Pa., Brooklyn, N. Y.

St. Louis Screw Co., St. Louis, Mo.

Topping Bros., New York, N. Y.

BOLT AND NUT MACHINERY.

Webster &amp; Perks Tool Co., The, Springfield, O.

BOND BUYERS.

Hanchett Bond Co., The, Chicago, Ill.

Hornblower &amp; Weeks, New York, N. Y.

Mercantile Trust &amp; Deposit Co., Baltimore, Md.

Nuveen &amp; Co., Chicago, Ill.

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**DESKS.** (Factory and Public Schools.)  
American Seating Co., Chicago, Ill.

**DIAMONDS.** (For Mechanical Purposes.)  
Desmond-Stephen Dresser Co., The, Urbana, O.

**DICTAPHONES.**  
Columbia Graphophone Co., New York, N. Y.

**DITCHING MACHINERY.**  
Hull Engine Co. (Erie Steam Shovel Co.) Erie, Pa.  
Bay City Dredge Works, Bay City, Mich.  
Buckeye Traction Ditcher Co., Findlay, Ohio.  
Fairbanks Steam Shovel Co., Marion, Ohio.  
Hayward & Co., The, New York, N. Y.  
Moulton Machine Co., Chicago, Ill.  
Osgood Co., The, Marion, Ohio.  
Sauerman Bros., Chicago, Ill.

**DOORS AND SHUTTERS.** (Steel Rolling.)  
Detroit Steel Products Co., Detroit, Mich.

**DOORS.** (Steel Rolling, etc.)  
Edwards Mfg. Co., Cincinnati, Ohio.  
Kinnear Mfg. Co., Columbus, Ohio.  
David Lupton's Sons Co., Philadelphia, Pa.

**DOUBLE SEAMERS.**  
Ann Machine Co., Max, Bridgeport, Conn.

**DRAFTSMEN'S SUPPLIES.**  
Weber & Co., F., Philadelphia, Pa.

**DRAG SAWS.** (Gasoline.)  
Chickasaw Coopers Co., Memphis, Tenn.

**DREDGING.** (River, Harbor Improvement.)  
Atlantic, Gulf & Pacific Co., New York, N. Y.

**DRIERS.**  
Bartlett & Snow Co., The C. O., Cleveland, Ohio.

**DRILLING CONTRACTORS.**  
Pennsylvania Drilling Co., Pittsburgh, Pa.

**DRILLS.**  
**ELECTRIC.**  
Independent Pneumatic Tool Co., Chicago, Ill.  
**PNEUMATIC.**  
Independent Pneumatic Tool Co., Chicago, Ill.  
**PROSPECTING.**  
Ingersoll-Rand Co., New York, N. Y.  
**ROCK AND MINING.**  
Ingersoll-Rand Co., New York, N. Y.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Sullivan Machinery Co., Chicago, Ill.  
**TWIST.**  
McKenna Brass & Mfg. Co., Inc., Pittsburgh, Pa.

**DROP FORGINGS.**  
American Spiral Pipe Works, Chicago, Ill.  
Lakeside Forge Co., Erie, Pa.

**DROP FORGING MACHINERY.**  
Bliss Co., E. W., Brooklyn, N. Y.

**DRY DOCKS.** (Builders of.)  
American Bridge Co., New York, N. Y.  
Foundation Co., The, New York, N. Y.

**DRYERS.**  
Christie Co., L. R., Pittsburgh, Pa.

**DYEING APPARATUS.**  
Carrier Engineering Corp., New York, N. Y.

**DYEING MACHINERY.**  
American Process Co., New York, N. Y.  
Bulley & Gray Co., The, Charleston, S. C.  
Bartlett & Snow Co., The C. O., Cleveland, Ohio.  
Buffalo Forge Co., Buffalo, N. Y.  
Christie Co., L. R., Pittsburgh, Pa.  
Clarence Pan Co., Kalamazoo, Mich.  
Hewitt Mfg. Co., South Boston, Mass.  
Ruggles-Colea Engr. Co., York, Pa.

**DRY KILNS.**  
Buffalo Forge Co., Buffalo, N. Y.  
Moore Dry Kiln Co., L., Jacksonville, Fla.

**DRY KILN EQUIPMENT.**  
Moore Dry Kiln Co., L., Jacksonville, Fla.

**DUMBWAITERS.** (Hand Power.)  
McKenna Brass & Mfg. Co., Inc., Pittsburgh, Pa.  
Speidel, J. G., Reading, Pa.

**DUMP WAGONS.**  
Western Wheeled Scraper Co., Aurora, Ill.

**DUST COLLECTING SYSTEMS.**  
Buffalo Forge Co., Buffalo, N. Y.  
Sirevport Blow Pipe & S. I. Works, Ltd., Sirevport, La.

**DUSTPROOFING.** (Concrete.)  
Sounbourn Sons, Inc., L., New York, N. Y.

**DYESTUFFS.**  
Wolf & Co., Jacques, Passaic, N. J.

**DYNAMITE.** (Industrial and Agricultural.)  
Aetna Explosives Co., Inc., New York, N. Y.  
Atlas Powder Co., Wilmington, Del.  
Du Pont de Nemours & Co., E. I., Wilton, Del.

**DYNAMOS AND MOTORS.**  
General Electric Co., Schenectady, N. Y.  
Pan Electric Mfg. Co., St. Louis, Mo.  
Wagner Elec. Mfg. Co., St. Louis, Mo.  
Boulanger Electric Mfg. Co., St. Louis, Mo.  
Western Electric Co., New York, N. Y.

**EJECTORS.** (Sewage.)  
Lunkenheimer Co., The, Cincinnati, Ohio.

**ELECTRIC FUSES.** (Renewable and Non Renewable.)  
Economy Fuse & Mfg. Co., Chicago, Ill.

**ELECTRIC LIGHTING FIXTURES.**  
Mitchell, Vance Co., Inc., New York, N. Y.

**ELECTRIC MACHINERY.** (Dynamos, Generators, Motors, etc.)  
Aills Chalmers Mfg. Co., Milwaukee, Wis.  
Carnall Electric Co., Washington, D. C.  
Dundley-Hill Electric Co., Washington, D. C.  
General Electric Co., Schenectady, N. Y.  
Gregory Electric Co., Chicago, Ill.  
Klein & Co., Nathan, New York, N. Y.  
Lincoln Electric Co., Cleveland, Ohio.  
Munroe Electric Motor Co., New York, N. Y.  
O'Brien Machinery Co., Philadelphia, Pa.  
Pan Electric Mfg. Co., St. Louis, Mo.  
Piedmont Electric Co., Ashville, N. C.  
Sachseman & Co., Geo., Philadelphia, Pa.  
Stewart, S. J. [Electric], New Orleans, La.  
Wagner Elec. Mfg. Co., St. Louis, Mo.  
Western Electric Co., New York, N. Y.  
Westhouse Elec. & Mfg. Co., E. Pittsburgh, Pa.  
Wilson Machinery Co., St. Louis, Mo.

**ELECTRICAL CONTRACTORS' INSTRUMENTS AND SUPPLIES.**  
Booth Felt Co., Inc., Brooklyn, N. Y.  
Carroll Electric Co., Washington, D. C.  
Dundley-Hill Electric Co., Washington, D. C.  
General Electric Co., Schenectady, N. Y.  
Piedmont Electric Co., Ashville, N. C.  
Weston Electrical Instrument Co., Newark, N. J.

**ELECTRICAL CONDUITS.**  
National Metal Molding Co., Pittsburgh, Pa.

**ELECTRICAL MACHINERY REPAIRING.**  
(Motors, Generators, etc.)  
Charlotte Elec. Repair Co., Charlotte, N. C.

**ELECTRIC LIGHT PLANTS.** (Portable.)  
Edison Storage Battery Co., Orange, N. J.  
Lucy Mfg. Co., New York, N. Y.

XUM



## ELEVATORS.

## AUTOMATIC.

Mathews Gravity Carrier Co., Ellwood City, Pa.

## ELECTRIC.

American Elev. & Mch. Co., Inc., Louisville, Ky.  
K. C. Elevator Mfg. Co., Kansas City, Mo.  
Moffatt Mch. Mfg. Co., Charlotte, N. C.  
Otis Elevator Co., New York, N. Y.  
Speidel, J. G., Reading, Pa.  
Warsaw Elevator Co., Baltimore, Md.

## HAND AND BELT POWER.

American Elev. & Mch. Co., Inc., Louisville, Ky.  
K. C. Elevator Mfg. Co., Kansas City, Mo.  
Moffatt Mch. Mfg. Co., Charlotte, N. C.  
Speidel, J. G., Reading, Pa.

## HYDRAULIC.

American Elev. & Mch. Co., Inc., Louisville, Ky.  
K. C. Elevator Mfg. Co., Kansas City, Mo.  
Moffatt Mch. Mfg. Co., Charlotte, N. C.  
Otis Elevator Co., New York, N. Y.

## PORTABLE FOR WAREHOUSES, ETC.

Economy Engineering Co., Chicago, Ill.

## STEAM HYDRAULIC.

Otis Elevator Co., New York, N. Y.  
Hidway & Son Co., The, Couteauville, Pa.

## ELEVATOR BUCKETS.

Alvey-Perguson Co., Inc., Cincinnati, Ohio.  
Caldwell & Son Co., H. W., Chicago, Ill.  
Hendrick Mfg. Co., Carbondale, Pa.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Link-Belt Co., Philadelphia, Pa.

## ELEVATOR ENCLOSURES AND CABS.

Bolles Iron & Wire Works, J. E., Detroit, Mich.  
Dexter Metal Mfg. Co., Camden, N. J.  
Dow Wire & Iron Works, Inc., Louisville, Ky.  
Dufur & Co., Baltimore, Md.  
Dufur, Baggott & Co., Baltimore, Md.  
Meyers Mfg. Co., The, Fred, J., Hamilton, Ohio.  
Otis Elevator Co., New York, N. Y.

## EMERY WHEEL STANDS.

Webster & Perks Tool Co., The, Springfield, O.

## ENAMELS.

Arco Co., Cleveland, Ohio.

## ENGINEERS.

## AGRICULTURAL.

Morse, Stanley F., New Orleans, La.

## APPRAISAL.

Allison, Walter A., Philadelphia, Pa.  
American Appraisal Co., The, Milwaukee, Wis.  
Black & Veatch, Kansas City, Mo.  
Day & Zimmerman, Inc., Philadelphia, Pa.  
Ford, Bacon & Davis, New York, N. Y.  
Kinneer & Co., W. S., New York, N. Y.  
Meade & Co., Richard K., Baltimore, Md.  
Weller, Francis R., Washington, D. C.

## BLAST FURNACES.

Fuller Engineering Co., Allentown, Pa.  
Guernsey & Co., John B., Roanoke, Va.  
McKee & Co., Arthur G., Cleveland, Ohio.  
Smythe Co., The, S. R., Pittsburgh, Pa.

## BRIDGES.

Concrete Steel Bridge Co., The, Clarksburg, W. Va.  
Concrete-Steel Engr. Co., New York, N. Y.  
Foundation Co., The, New York, N. Y.  
Freeland-Klyce Engr. Co., Nashville, Tenn.  
Gardner & Howe, Memphis, Tenn.  
Hedrick & Hedrick, Kansas City, Mo.  
Kinneer & Co., W. S., New York, N. Y.  
Luten, Daniel B., Indianapolis, Ind.

## CEMENT MILL.

Fuller Engineering Co., Allentown, Pa.  
Meade & Co., Richard K., Baltimore, Md.

## CHEMICAL.

Birmingham Mach. & Fdry. Co., Birmingham, Ala.  
Dow & Smith, New York, N. Y.  
Foundation Co., The, New York, N. Y.  
Gilbert, N. A., Ashland, Ala.  
Inst. of Industrial Research, Inc., Wash., D. C.  
Little, Inc., Arthur D., Cambridge, Mass.  
Mineral Corporation of America, Inc., New York.  
Meade & Co., Richard K., Baltimore, Md.  
Nelson, Jr., Wm. P., New Orleans, La.  
Pittsburgh Testing Laboratory, Pittsburgh, Pa.

## CIVIL.

Arnold Co., The, Chicago, Ill.  
Brackett, F. Ernest, Cumberland, Md.  
Clark & Krebs, Charleston, W. Va.  
Concrete-Steel Engr. Co., New York, N. Y.  
Foundation Co., The, New York, N. Y.  
Gardner & Howe, Memphis, Tenn.  
Hall & Sons, B. M., Atlanta, Ga.  
Kinneer & Co., W. S., New York, N. Y.  
Knowles, Morris, Pittsburgh, Pa.  
Moore & Co., W. E., Pittsburgh, Pa.  
Pride & Fairley, Blytheville, Ark.  
White Companies, J. G., New York, N. Y.

## DAMS.

Byllesby & Co., H. M., Chicago, Ill.  
Foundation Co., The, New York, N. Y.  
Gardner & Howe, Memphis, Tenn.  
Main, Chas. T., Boston, Mass.  
Moore & Co., W. E., Pittsburgh, Pa.  
Weller, Francis R., Washington, D. C.  
White Companies, J. G., New York, N. Y.

## DRAINAGE AND IRRIGATION.

Ford, Bacon & Davis, New York, N. Y.  
Knowles, Morris, Pittsburgh, Pa.  
Pride & Fairley, Blytheville, Ark.  
Spray Engr. Co., Boston, Mass.

## EFFICIENCY.

Inst. of Industrial Research, Inc., Wash., D. C.  
Little, Inc., Arthur D., Cambridge, Mass.  
Moore & Co., W. E., Pittsburgh, Pa.  
Nelson, Jr., Wm. P., New Orleans, La.

## ELECTRICAL.

Arnold Co., The, Chicago, Ill.  
Friend & Weber, New Orleans, La.  
Lide, Martin J., Birmingham, Ala.  
Meade & Co., Richard K., Baltimore, Md.  
Moore & Co., W. E., Pittsburgh, Pa.  
Stone & Webster, Boston, Mass.  
Stuart, James & Cooke, New York, N. Y.  
Tucker & Laxton, Charlotte, N. C.  
West-house Church Kerr & Co., New York, N. Y.  
White, Gilbert C., Charlotte, N. C.  
Wiley & Wilson, Lynchburg, Va.

## ELECTRIC LIGHT AND POWER PLANTS.

Black & Veatch, Kansas City, Mo.  
Byllesby & Co., H. M., Chicago, Ill.  
Ford, Bacon & Davis, New York, N. Y.  
Foundation Co., The, New York, N. Y.  
Graves Engr. Co., Inc., New York, N. Y.  
Moore & Co., W. E., Pittsburgh, Pa.  
Seaford Engr. Co., Philadelphia, Pa.  
Stone & Webster, Boston, Mass.  
Weller, Francis R., Washington, D. C.  
West-house Church Kerr & Co., New York, N. Y.  
White Companies, J. G., New York, N. Y.  
White, Gilbert C., Charlotte, N. C.  
Wiley & Wilson, Lynchburg, Va.

## GAS.

Allison, Walter A., Philadelphia, Pa.  
Byllesby & Co., H. M., Chicago, Ill.  
Ford, Bacon & Davis, New York, N. Y.

## GEOLOGICAL.

Clark & Krebs, Charleston, W. Va.  
Davis, Geo. C., Philadelphia, Pa.  
Frederick & Robertson, Richmond, Va.  
Institute of Indust. Resch., Inc., Wash., D. C.  
Meade & Co., Richard K., Baltimore, Md.

## HYDRO-ELECTRIC.

Byllesby & Co., H. M., Chicago, Ill.  
Foundation Co., The, New York, N. Y.  
Kinneer & Co., W. S., New York, N. Y.  
Knowles, Morris, Pittsburgh, Pa.  
Main, Chas. T., Boston, Mass.  
Moore & Co., W. E., Pittsburgh, Pa.  
Seaford Engr. Co., Philadelphia, Pa.  
Smythe Co., The, S. R., Pittsburgh, Pa.  
Tucker & Laxton, Charlotte, N. C.  
White Companies, J. G., New York, N. Y.  
Wiley & Wilson, Lynchburg, Va.

## INDUSTRIAL PLANT.

Austin Co., The, Cleveland, Ohio.  
Brackett, F. Ernest, Cumberland, Md.  
Brooks Eng. Co., C. L., Moultrie, Ga.  
Concrete-Steel Bridge Co., The, Clarksburg, W. Va.  
Day & Zimmerman, Inc., Philadelphia, Pa.  
Dixie Engineering & Insulating Co., Atlanta, Ga.  
Foundation Co., The, New York, N. Y.  
Friend & Weber, New Orleans, La.  
Fuller Engineering Co., Allentown, Pa.  
Gardner & Howe, Memphis, Tenn.  
Institute of Indust. Resch., Inc., Wash., D. C.  
International Conveyor Corp., The, Wash., D. C.  
Kinneer & Co., W. S., New York, N. Y.  
Little, Inc., Arthur D., Cambridge, Mass.  
McKee & Co., Arthur G., Cleveland, Ohio.  
McKinney Const. Co., John T., Lynchburg, Va.  
Main, Chas. T., Boston, Mass.  
Meade & Co., Richard K., Baltimore, Md.  
Moore & Co., W. E., Pittsburgh, Pa.  
Nelson, Jr., Wm. P., New Orleans, La.  
O'Brien, W. C., Memphis, Tenn.  
Rust Engineering Co., The, Pittsburgh, Pa.  
Seaford Engineering Co., Philadelphia, Pa.  
Shearer, C. E., Memphis, Tenn.  
Stone & Webster, Boston, Mass.  
West-house Church Kerr & Co., New York, N. Y.  
White Companies, J. G., New York, N. Y.  
Wiley & Wilson, Lynchburg, Va.

## INSPECTIONS AND TESTS.

Dow & Smith, New York, N. Y.  
Fort Worth Laboratories, Fort Worth, Tex.  
Frederick & Robertson, Richmond, Va.  
Institute of Indust. Resch., Inc., Wash., D. C.  
Moore & Co., W. E., Pittsburgh, Pa.  
Pittsburgh Testing Laboratory, Pittsburgh, Pa.  
Pride & Fairley, Blytheville, Ark.

## LANDSCAPE.

Burnap, Geo., Washington, D. C.  
Hoffman, Leon, Atlanta, Ga.

## LEVEES.

Moore & Co., W. E., Pittsburgh, Pa.  
Pride & Fairley, Blytheville, Ark.

## LIGHTING.

Byllesby & Co., H. M., Chicago, Ill.  
Ford, Bacon & Davis, New York, N. Y.  
McCrory & Co., J. B., Atlanta, Ga.  
Wiley & Wilson, Lynchburg, Va.

## MECHANICAL.

Arnold Co., The, Chicago, Ill.  
Dixie Engineering & Insulating Co., Atlanta, Ga.  
Friend & Weber, New Orleans, La.  
Fuller Engineering Co., Allentown, Pa.  
Lide, Martin J., Birmingham, Ala.  
Meade & Co., Richard K., Baltimore, Md.  
Moore & Co., W. E., Pittsburgh, Pa.  
Tucker & Laxton, Charlotte, N. C.  
Wiley & Wilson, Lynchburg, Va.

## METALLURGICAL.

Guernsey & Co., John B., Roanoke, Va.  
Meade & Co., Richard K., Baltimore, Md.  
Mineral Corporation of America, Inc., New York.

## MINING.

Brackett, F. Ernest, Cumberland, Md.  
Clark & Krebs, Charleston, W. Va.  
Guernsey & Co., John B., Roanoke, Va.  
Hall & Sons, B. M., Atlanta, Ga.  
International Conveyor Corp., The, Wash., D. C.  
Johnston, Jr., A. Langstaff, Richmond, Va.  
Mineral Corporation of America, Inc., New York.

## MUNICIPAL.

Clark & Krebs, Charleston, W. Va.  
Dow & Smith, New York, N. Y.  
Jennings-Lawrence Co., The, Columbus, Ohio.  
Knowles, Morris, Pittsburgh, Pa.  
McCrory & Co., J. B., Atlanta, Ga.  
Moore & Co., W. E., Pittsburgh, Pa.  
White, Gilbert C., Durham, N. C.

## PACKING-HOUSE.

Brooks Engineering Co., C. L., Moultrie, Ga.  
Dixie Engineering & Insulating Co., Atlanta, Ga.

## PAVING AND ROADS.

Dow & Smith, New York, N. Y.  
Freeland-Klyce Engr. Co., Nashville, Tenn.  
Institute of Indust. Resch., Inc., Wash., D. C.  
Jennings-Lawrence Co., The, Columbus, Ohio.  
McKinney Const. Co., John T., Lynchburg, Va.  
Pride & Fairley, Blytheville, Ark.  
White, Gilbert C., Durham, N. C.

## PUBLIC SERVICE PROPERTIES.

Byllesby & Co., H. M., Chicago, Ill.  
Day & Zimmerman, Inc., Philadelphia, Pa.  
Ford, Bacon & Davis, New York, N. Y.  
Kinneer & Co., W. S., New York, N. Y.  
Moore & Co., W. E., Pittsburgh, Pa.  
Seaford Engineering Co., Philadelphia, Pa.  
Stone & Webster, Boston, Mass.  
Weller, Francis R., Washington, D. C.  
West-house Church Kerr & Co., New York, N. Y.  
White Companies, J. G., New York, N. Y.

## RAILROAD.

Brackett, F. Ernest, Cumberland, Ohio.  
Clark & Krebs, Charleston, W. Va.  
Hunt & Co., Robert W., Chicago, Ill.  
International Conveyor Corp., The, Wash., D. C.  
Kinneer & Co., W. S., New York, N. Y.

## REFRIGERATING.

Brooks Engineering Co., C. L., Moultrie, Ga.  
Dixie Engineering & Insulating Co., Atlanta, Ga.

## REINFORCED CONCRETE.

Concrete-Steel Engr. Co., New York, N. Y.  
Concrete-Steel Bridge Co., The, Clarksburg, W. Va.  
Foundation Co., The, New York, N. Y.  
Freeland-Klyce Engr. Co., Nashville, Tenn.  
Gardner & Howe, Memphis, Tenn.  
Kinneer & Co., W. S., New York, N. Y.  
Luten, Daniel B., Indianapolis, Ind.  
McKinney Const. Co., John T., Lynchburg, Va.  
Meade & Co., Richard K., Baltimore, Md.  
Rust Engineering Co., The, Pittsburgh, Pa.  
Savannah Engr. & Const. Co., Savannah, Ga.  
Tucker & Laxton, Charlotte, N. C.  
White Companies, J. G., New York, N. Y.

## SEWERAGE AND WATER-WORKS.

Black & Veatch, Kansas City, Mo.  
Brackett, F. Ernest, Cumberland, Md.  
Ford, Bacon & Davis, New York, N. Y.  
Jennings-Lawrence Co., The, Columbus, O.  
Knowles, Morris, Pittsburgh, Pa.

McKinney Const. Co., John T., Lynchburg, Va.  
Moore & Co., W. E., Pittsburgh, Pa.  
White Companies, J. G., New York, N. Y.  
White, Gilbert C., Durham, N. C.  
Wiley & Wilson, Lynchburg, Va.

## STEEL WORK AND ROLLING MILLS.

Smythe Co., The, S. R., Pittsburgh, Pa.

## STRUCTURAL STEEL.

Freeland-Klyce Engr. Co., Nashville, Tenn.  
Hedrick & Hedrick, Kansas City, Mo.  
Shearer, C. E., Memphis, Tenn.

## ENGINES.

COMPRESSED AIR.  
Duke Engine Co., Grand Haven, Mich.  
GAS AND GASOLINE.  
American-Blakeslee Mfg. Co., Birmingham, Ala.  
Cooper Co., C. & G. Mt. Vernon, Ohio.  
De La Vergne Machine Co., New York, N. Y.  
Foss Gas Engine Co., Springfield, Ohio.  
Mitz, Corp., August, New York, N. Y.  
National Transit Pump & Mch. Co., Oil City, Pa.  
Novo Engine Co., Lansing, Mich.

## KEROSENE.

American-Blakeslee Mfg. Co., Birmingham, Ala.  
Novo Engine Co., Lansing, Mich.

## OIL.

Baltimore Oil Engine Co., Baltimore, Md.  
Buckeye Mach. Co., The, Lima, Ohio.  
Chicago Pneumatic Tool Co., Chicago, Ill.  
De La Vergne Machine Co., New York, N. Y.  
Foss Gas Engine Co., Springfield, Ohio.  
Mietz Corp., August, New York, N. Y.  
Muncie Oil Engine Co., Muncie, Ind.  
National Transit Pump & Mch. Co., Oil City, Pa.  
Power Mfg. Co., The, Marion, Ohio.  
St. Mary's Oil Engine Co., St. Charles, Mo.  
Watlington Pump & Mch. Corp., New York, N. Y.

## STEAM.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Ames Iron Works, Oswego, N. Y.  
Ball Engine Co., Erie, Pa.  
Buffalo Forge Co., Buffalo, N. Y.  
Clark Bros. Co., Olean, N. Y.  
Cooper Co., C. & G. Mt. Vernon, Ohio.  
Erie Pump & Engine Co., Medina, N. Y.  
Harris Bros. Co., Chicago, Ill.  
Hardie-Tynes Mfg. Co., Birmingham, Ala.  
Houston, Stansell & Gamble Co., Cincinnati, O.  
Lefel & Co., James, Springfield, Ohio.  
Lombard Iron Works, Augusta, Ga.  
Mecklenburg Iron Works, Charlotte, N. C.  
Morris Machine Works, Baldwinville, N. Y.  
Murray Iron Works Co., Burlington, Iowa.  
National Transit Pump & Mch. Co., Oil City, Pa.  
Schofield Iron Works, Macon, Ga.  
Vilter Mfg. Co., Milwaukee, Wis.

## UNIFLOW.

Ames Iron Works, Oswego, N. Y.

## ENVELOPES.

Young & Selden Co., Baltimore, Md.

## EVAPORATORS. (Chemical.)

Birmingham Mch. & Fdry. Co., Birmingham, Ala.

## EXCAVATING MACHINERY.

Ball Engine Co. (Erie Steam Shovel Co.), Erie, Pa.  
Bay City Dredge Works, Bay City, Mich.  
Buckeye Traction Ditcher Co., Findlay, Ohio.  
Byers Machine Co., The, John F., Ravenna, O.  
Fairbanks Steam Shovel Co., Marion, Ohio.  
Hayward Co., The, New York, N. Y.  
Keystone Driller Co., Beaver Falls, Pa.  
Lidgerwood Mfg. Co., New York, N. Y.  
Monaghan Machine Co., Chicago, Ill.  
Morris Machine Works, Baldwinville, N. Y.  
Osgood Co., The, Marion, Ohio.  
Owen Bucket Co., The, Cleveland, Ohio.  
Sauerman Bros., Chicago, Ill.

## EXCAVATORS.

CABLEWAY DRAGLINE.  
Ball Engine Co. (Erie Steam Shovel Co.), Erie, Pa.  
Sauerman Bros., Chicago, Ill.

## TRENCH.

Ball Engine Co. (Erie Steam Shovel Co.), Erie, Pa.  
Bay City Dredge Works, Bay City, Mich.  
Buckeye Traction Ditcher Co., Findlay, Ohio.  
Fairbanks Steam Shovel Co., Marion, Ohio.  
Hayward Co., The, New York, N. Y.  
Keystone Driller Co., Beaver Falls, Pa.  
Monaghan Machine Co., Chicago, Ill.

## EXCELSIOR MACHINERY.

Kline, Lewis T., Alpena, Mich.

## EXHAUST FANS. (Acid Proof.)

Duriron Casting Co., Dayton, Ohio.

## EXHAUST HEADS.

Abendroth & Root Mfg. Co., Newburgh, N. Y.  
American Spiral Pipe Works, Chicago, Ill.

## EXPANDED METAL LATH REINFORCING.

Consolidated Expanded Metal Co., Braddock, Pa.

## EXPANSION JOINTS. (Street and Road.)

Northwestern Expanded Metal Co., Chicago, Ill.

## EXPERT. (Agricultural.)

Morse, Stanley F., New Orleans, La.

## EXPLOSIVES.

Aetna Explosives Co., Inc., New York, N. Y.  
Atlas Powder Co., Wilmington, Del.  
Du Pont de Nemours & Co., E. I., Wilton, Del.

## EXPORTERS.

American Steel Export Co., New York, N. Y.  
Burgess & Co., D. H., Petersburg, Va.

## FACTORY SITES. (Town and Railroad.) [See

Industrial, Agricultural and Commercial Opportunities.]

Martien & Co., Wm., Baltimore, Md.

## FEED-WATER HEATERS AND PURIFIERS.

American Water Softener Co., Philadelphia, Pa.  
Murray Iron Works Co., Burlington, Iowa.  
Worthington Pump & Mch. Corp., New York, N. Y.

## FELT. (Building Sheathing.)

Barrett Co., New York, N. Y.

## FELT PARTS. (Mechanical Purposes.)

Booth Felt Co., Inc., Brooklyn, N. Y.

## FENCING.

CORRUGATED, GALVANIZED, CONCRETE.  
Amer. Sheet & Tin Plate Co., Pittsburgh, Pa.

## WOVEN WIRE FIELD.

American Steel & Wire Co., Chicago, Ill.  
Anchor Post Iron Works, New York, N. Y.  
Cyclone Fence Co., Waukegan, Ill.  
Gulf States Steel Co., Birmingham, Ala.  
Page Steel & Wire Co., Adrian, Mich.  
Wright Wire Co., The, Worcester, Mass.

## FENCING, ENTRANCE GATES. (Iron, Steel,

Wire.)  
American Steel & Wire Co., Chicago, Ill.  
Anchor Post Iron Works, New York, N. Y.  
Bolles Iron & Wire Works, J. E., Detroit, Mich.  
Cyclone Fence Co., Waukegan, Ill.  
Dow Wire & Iron Works, Inc., Louisville, Ky.  
Dufur & Co., Baltimore, Md.  
New Jersey Wire Cloth Co., Trenton, N. J.  
Page Steel & Wire Co., Adrian, Mich.  
Van Dorn Iron Works Co., The, Cleveland, Ohio.

## FERTILIZER MACHINERY.

K-B Pulverizer Co., Inc., New York, N. Y.  
Raymond Bros. Imp. Pulverizer Co., Chicago, Ill.  
Valk & Murdoch Co., Charleston, S. C.

## FILES.

Barnett Co., G. & H., Philadelphia, Pa.  
Nicholson File Co., Providence, R. I.

## FILTERS. (For Domestic and Ind. Purposes.)

American Water Softener Co., Philadelphia, Pa.  
Electric Ozonizer Sterilizer Co., Chicago, Ill.  
International Filter Co., Chicago, Ill.  
Pittsburgh Filter Mfg. Co., Pittsburgh, Pa.  
Richmond Water Softener Co., Richmond, Ind.  
Roberts Filter Mfg. Co., Darby, Pa.

## FINANCING.

Electric Bond & Share Co., New York, N. Y.

## FIRE CLAY FLUE LININGS.

Stevens Bros. & Co., Stevens Pottery, Ga.

## FIRE ESCAPES.

Bolles Iron & Wire Works, J. E., Detroit, Mich.  
Chattanooga Rfg. & Fdy. Co., Chattanooga, Tenn.  
Chesapeake Iron Works, Baltimore, Md.

## FIREPLACES. (Brick and Tile.)

Hood Brick Co., B. Midlin, Atlanta, Ga.

## FIREPROOF BUILDING MATERIAL.

Aspromont Company, Pittsburgh, Pa.  
Annon Pipe Co., P., Louisville, Ky.  
Berger Mfg. Co., Canton, Ohio.  
General Fireproofing Co., Youngstown, Ohio.

## FIREPROOF DOORS AND SHUTTERS.

Kinmar Mfg. Co., Columbus, Ohio.

## FIREPROOFING. (Brick and Tile.)

Hood Brick Co., B. Midlin, Atlanta, Ga.

## FIREPROOF MATERIAL AND CONSTRUCTION.

Detroit Steel Products Co., Detroit, Mich.

## FIRE SPRINKLING SYSTEMS.

Globe Automatic Sprinkler Co., Philadelphia, Pa.

## FITTINGS. (Malleable and Cast.)

Ohio Pipe Co., Findlay, Ohio.

## FITTINGS. (Wire Rope.)

Waterbury Co., New York, N. Y.

## FLAG POLES. (Iron and Steel.)

National Tube Co., Pittsburgh, Pa.  
Meyers Mfg. Co., Fred, J., Hamilton, Ohio.

## FLANGES. (Iron and Steel.)

American Cast Iron Pipe Co., Birmingham, Ala.  
American Stryke Pipe Works, Chicago, Ill.  
Dart Mfg. Co., E. M., Providence, R. I.  
Glumorgan Pipe & Fdry Co., Lynchburg, Va.  
National Cast Iron Pipe Co., Birmingham, Ala.  
U. S. Cast Iron Pipe Fdy. Co., Burlington, N. J.  
Wood Co., R. D., Philadelphia, Pa.

## FLOORING.

Ames Asphaltum Covering & Sup. Co., Chicago, Ill.  
Johns-Manville Co., H. W., New York, N. Y.

## C

**AN PRODUCERS.**  
Anker Co. H., Pittsburgh, Pa.  
Anker Construction Co., Worcester, Mass.  
Anker Co. The S. B., B. Pittsburgh, Pa.  
Anker-Lever-Morgan Co., The, Cleveland, O.  
Anker House Elec. & Mfg. Co., E. Pittsburgh, Pa.  
Anker & Co., B. D., Philadelphia, Pa.

**GASOLINE AND KEROSENE.**  
Anker Refining Co., Pittsburgh, Pa.  
Anker Oil Co. of Louisiana, Baton Rouge, La.  
Anker Co., The, New York, N. Y.

**GEARS.**  
Anker & Son Co. H. W., Chicago, Ill.  
Anker Truck & S'ply Mfg. Co., Columbus, Ga.  
Anker-Morris Co., Philadelphia, Pa.  
Anker Mfg. Co., Columbus, Ohio.

**GEAR CUTTING.**  
Anker-Blaeslee Mfg. Co., Birmingham, Ala.

**GEOMETRISTS.**  
Anker George C., Philadelphia, Pa.  
Anker & Robertson, Richmond, Va.

**GLASS (Plate, etc.).**  
Anker & Co., Memphis Tenn.  
Anker Turner Glass Co., Washington, D. C.

**GLASS CONSTRUCTION.**  
Anker Steel Products Co., Detroit, Mich.

**GLAZING CONSTRUCTION.**  
Anker Company, Pittsburgh, Pa.

**GLUE (Marine).**  
Anker & Smith Co., New York, N. Y.

**GOVERNORS (Steam Engine).**  
Anker Governor Co., Portland, Conn.

**GRADERS (Turbine).**  
Anker Machine Co., Milwaukee, Wis.

**GRAIN ELEVATOR SUPPLIES.**  
Anker & Son Co. H. W., Chicago, Ill.  
Anker Mfg. Co., Columbus, Ohio.

**GRAPHITE.**  
Anker Crucible Co., Joseph, Jersey City, N. J.

**GRANITE SAND.**  
Anker Quarries Co., A. T., Macon, Ga.

**GRAPHTIC MACHINERY.**  
Anker Mfg. Co., W. O., Nashville, Tenn.

**GRATES AND GRATE BARS.**  
Anker Iron & Metal Co., Savannah, Ga.  
Anker Machine Co., Richmond, Va.  
Anker Grate Bar Co., Birmingham, Ala.  
Anker Machine Co., Henry, Louisville, Ky.

**GRAVEL (Roofing and Road).**  
Anker Ballast Co., Knoxville, Tenn.  
Anker Sand & Gravel Co., Baltimore, Md.  
Anker & Laurie Gravel Co., Montgomery, Ala.  
Anker Fuel & Supply Co., Macon, Ga.

**GRAVITY SPIRAL CHUTES.**  
Anker Ferguson Co., Cincinnati, Ohio.  
Anker Wire & Iron Works, Inc., Louisville, Ky.  
Anker Gravity Carrier Co., Elwood City, Pa.

**GREASE.**  
Anker Lubricating Co., New York, N. Y.  
Anker Oil Co. of La., Baton Rouge, La.  
Anker & Finch Co., New York, N. Y.

**GREASE CUPS.**  
Anker Lubricating Co., New York, N. Y.  
Anker Lubricator Co., The, Cincinnati, Ohio.

**GREASE AND LUBRICATING COMPOUNDS.**  
Anker Lubricating Co., New York, N. Y.  
Anker Strymer Co., New York, N. Y.  
Anker & Son Co., Wm. C., Baltimore, Md.  
Anker Oil Co. of Louisiana, Baton Rouge, La.  
Anker & Finch Co., New York, N. Y.  
Anker Co., The, New York, N. Y.

**GRINDERS.**  
Anker Limestone, Etc.  
Anker Pulverizer Co., Allentown, Pa.  
Anker Tool & Mch. Co., East St. Louis, Mo.  
Anker-Leigh Co., Fullerton, Pa.  
Anker Bros. Imp. Pulverizer Co., Chicago, Ill.  
Anker Patent Crusher & Pulv. Co., Chicago, Ill.

**GRINDING WHEELS.**  
Anker & Perkins Tool Co., The, Springfield, Ohio.

**GRINDING WHEEL DRESSERS.**  
Anker Stephen Dresser Co., The, Urbana, O.

**GRINDING WHEELS.**  
Anker Wheel Co., Westfield, Mass.

**GROMMETS AND WASHERS.**  
Anker Co., Edwin B., Brooklyn, N. Y.

**GUARDS (For Machinery).**  
Anker Wire Co., The, Worcester, Mass.

**GUARDS.**  
Anker (For Machinery).  
Anker Wire Co., The, Worcester, Mass.

**HAMMERS (Belt or Motor Driven).**  
Anker & Co., Inc., Boston, Mass.

**HAMMERS (Shell Nosing).**  
Anker & Co., Inc., Boston, Mass.

**HAMMERS (Steam, Power, Pneumatic).**  
Anker-Hand Co., New York, N. Y.

**HAMMERS (Line Shaft).**  
Anker & Mach Co., Manheim, Pa.  
Anker Roller Bearing Co., New York, N. Y.

**HARD IRON STARS.**  
Anker Mfg. Co., The, Cleveland, Ohio.

**HAY TOOLS.**  
Anker & Bro. F. E., Ashland, Ohio.

**HAYERS (Asphalt).**  
Anker & Son Co., F. D., The, Cleveland, Ohio.

**HAYERS (Chemical Plants).**  
Anker Mch. & Fdry. Co., Birmingham, Ala.

**HEATING APPARATUS, ENGINEERS AND CONTRACTORS.**  
Anker Steam Pump Co., Buffalo, N. Y.  
Anker Gas Co., Kalamazoo, Mich.  
Anker Heating Co., Cincinnati, Ohio.  
Anker-Coles Engineering Co., York, Pa.  
Anker Bros. Mfg. Co., St. Louis, Mo.

**HEAT INSULATION.**  
Anker Assn. of America, Philadelphia, Pa.

**HOISTING MACHINERY.**  
Anker Con. Plant Corp., Buffalo, N. Y.  
Anker Machine Co., The John F., Ravenna, Ohio.  
Anker Engine Co., Grand Haven, Mich.  
Anker Mfg. Co., S. Bangor, Pa.  
Anker Mfg. Co., New York, N. Y.  
Anker Machine Co., Chicago, Ill.  
Anker Iron Works & Steel Co., Inc., New York, N. Y.  
Anker Electric Crane & Hoist Co., Montour Falls, N. Y.  
Anker Stroudsburg Engine Works, Stroudsburg, Pa.

**HOISTS.**  
Anker Chain.  
Anker Engine Co., Grand Haven, Mich.  
Anker Chain Block & Mfg. Co., Philadelphia, Pa.  
Anker J. G. Co., Reading, Pa.  
Anker Trolley Bros., New York, N. Y.  
Anker Mfg. Co., Lumbard, Ohio.  
Anker & Towne Mfg. Co., New York, N. Y.

**ELECTRIC.**  
Buffalo Hoist & Derrick Co., New York, N. Y.  
Flory Mfg. Co., S. Bangor, Pa.  
Lidgerwood Mfg. Co., New York, N. Y.  
Moulton Machine Co., Chicago, Ill.  
O'Brien Elevator Co., New York, N. Y.  
Patten Mfg. Co., Chattanooga, Tenn.  
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.  
Yale & Towne Mfg. Co., New York, N. Y.

**GASOLINE.**  
Novo Engine Co., Lansing, Mich.  
Patten Mfg. Co., Chattanooga, Tenn.

**STEAM.**  
American Cement Mch. Co., Inc., Keokuk, Iowa.  
Buffalo Con. Plant Corp., Buffalo, N. Y.  
Buffalo Hoist & Derrick Co., New York, N. Y.  
Rivers Machine Co., John F., Ravenna, Ohio.  
Drake Engine Co., Grand Haven, Mich.  
Flory Mfg. Co., Bangor, Pa.  
Lidgerwood Mfg. Co., New York, N. Y.  
Stroudsburg Engine Works, Stroudsburg, Pa.

**HOLLOW BUILDING TILE.**  
Asher Fireproofing Co., Washington, D. C.  
O'Connor Brick & Tile Co., Milledgeville, Ga.

**HOOPS, BANDS, ETC. (Galvanized).**  
McCalla Co., Harold, Philadelphia, Pa.

**HOSE.**  
Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.  
Goodyear Tire & Rubber Co., Akron, Ohio.

**HOT GALVANIZING.**  
Hanson-Gregory Galvanizing Co., Pittsburgh, Pa.

**HOUSES.**  
Multiple Pressed Steel.  
Trus-Con Steel Co., Youngstown, Ohio.

**HULLS (Steel, for Boats and Barges).**  
American Bridge Co., New York, N. Y.

**HUMIDITY REGULATION.**  
Carrier Engineering Corp., New York, N. Y.

**HUMIDIFYING APPARATUS.**  
Carrier Engineering Corp., New York, N. Y.

**HYDRANTS.**  
Houston Copper & Brass Wks. Co., Cincinnati, O.  
Columbian Iron Works, Chattanooga, Tenn.  
Climax Pipe & Fdry. Co., Lynchburg, Va.  
Myers & Bro. F. E., Ashland, Ohio.  
Wood & Co., R. D., Philadelphia, Pa.

**HYDRAULIC GIANTS.**  
American Spiral Pipe Works, Chicago, Ill.

**ICE AND REFRIGERATING BOXES.**  
Brecht Co., The, St. Louis, Mo.  
Ottenheimer Bros., Baltimore, Md.

**ICE-MAKING MACHINERY AND SUPPLIES.**  
Arctic Ice Machine Co., Canton, Ohio.  
Berrymans Refrigerating Mch. Ex., Phila., Pa.  
Brecht Co., The, St. Louis, Mo.  
De La Vergne Mch. Co., New York, N. Y.  
Pack Co., Wayneboro, Pa.  
Vilter Mfg. Co., Milwaukee, Wis.  
Vogt Bros. Mfg. Co., Louisville, Ky.  
Vogt Machine Co., Inc., Henry, Louisville, Ky.

**IMPORTERS.**  
Burgess & Co., D. H., Petersburg, Va.

**INCORPORATORS (Companies).**  
Delaware Regist. Trust Co., Wilmington, Del.

**INDUSTRIAL AGRICULTURAL AND COMMERCIAL OPPORTUNITIES.**  
Carolina, Church & O. Ry., Johnson City, Tenn.  
Central of Georgia Rwy., Savannah, Ga.  
Florida East Coast Rwy., St. Augustine, Fla.  
Georgia & Florida Rwy., Augusta, Ga.  
Model Land Company of the Flagler System, St. Augustine, Fla.

**INJECTORS.**  
Edna Brass Mfg. Co., Cincinnati, Ohio.  
Lunsford Machine Co., The, Cincinnati, Ohio.  
Hendall Machinery Co., Cincinnati, Ohio.  
Sellers & Co., Inc., Wm., Philadelphia, Pa.

**INSTRUMENTS (Electrical).**  
Weston Electrical Instrument Co., Newark, N. J.

**INSULATING MATERIALS.**  
General Electric Co., Schenectady, N. Y.  
Johns-Manville Co., H. W., New York, N. Y.

**INSURANCE.**  
Hartford Steam Boiler Inspection and Insurance Co., Hartford, Conn.  
Holden Co., Chas. F., Washington, D. C.  
Jenison Real Estate & Insurance Co., Birmingham, Ala.  
Holden Co., Chas. F., Washington, D. C.  
LIABILITY.  
Holden Co., Chas. F., Washington, D. C.  
LIFE.  
Thomas & Thomas, Baltimore, Md.

**INTERIOR CONDUITS.**  
National Metal Molding Co., Pittsburgh, Pa.

**INVESTMENTS (Real Estate).**  
Jenison Real Estate & Insurance Co., Birmingham, Ala.

**INVESTMENT SECURITIES.**  
Edwards, Geo. B., New York, N. Y.  
Electric Bond & Share Co., New York, N. Y.  
Hanchett Bond Co., The, Chicago, Ill.  
Hornblower & Weeks, New York, N. Y.  
Mercantile Trust & Deposit Co., Baltimore, Md.  
Nuven & Co., John, Chicago, Ill.  
Powell, Garret & Co., Chicago, Ill.  
Sidney, Spitzer & Co., Toledo, Ohio.  
Slattery & Co., W. L., Toledo, Ohio.

**IRON.**  
Aborn Steel Co., New York, N. Y.  
Allegany Steel Co., Pittsburgh, Pa.  
Hoffman-Spreel Co., Philadelphia, Pa.  
La Belle Iron Works, Steubenville, Ohio.  
Republic Iron & Steel Co., Youngstown, Ohio.  
Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.

**IRON ORES.**  
Southern Minerals Corp., Boston, Mass.

**IRRIGATING MACHINERY.**  
Cameron St. Pump Wks., A. S., New York, N. Y.

**JET STONES.**  
Small Quarries Co., A. T., Macon, Ga.

**JOIST HANGERS.**  
Van Dorn Iron Works Co., The, Cleveland, Ohio.  
Valley Iron Works, Williamsport, Pa.

**KNITTING MACHINERY.**  
Scott & Williams, New York, N. Y.

**LACE LEATHER.**  
Graton & Knight Mfg. Co., Worcester, Mass.  
Schieren Co., Chas. A., New York, N. Y.

**LADDERS (Rolling).**  
Myers & Bros., F. E., Ashland, Ohio.

**LAMPS (Arc and Incandescent).**  
General Electric Co., Schenectady, N. Y.  
Piedmont Electric Co., Asheville, N. C.  
Westhouse Elec. & Mfg. Co., E. Pittsburgh, Pa.  
Westinghouse Lamp Co., New York, N. Y.

**LAMPS (Carbon and Tungsten).**  
Newman Electric Lamp Co., Cincinnati, Ohio.

**LATH (Metal).**  
Berger Mfg. Co., Canton, Ohio.  
Consolidated Expanded Metal Co., Braddock, Pa.  
Edwards Mfg. Co., Cincinnati, Ohio.  
General Fireproofing Co., Youngstown, Ohio.  
Northwestern Expanded Metal Co., Chicago, Ill.

**LAWN FURNITURE (Wire).**  
Roller Iron & Wire Works, J. E., Detroit, Mich.  
Dufur & Co., Baltimore, Md.  
Dufur, Baggett & Co., Baltimore, Md.

**LIGHTING FIXTURES.**  
Mitchell, Vance Co., Inc., New York, N. Y.

**LIMESTONE (Building).**  
Ind. Limestone Quarries' Assn., Bedford, Ind.

**LINE SHAFT BEARINGS AND HANGERS.**  
Hyatt Roller Bearing Co., New York, N. Y.

**LIQUOR FILTERS.**  
International Filter Co., Chicago, Ill.

**LITHOGRAPHERS, ENGRAVERS.**  
Roberts & Sons, Birmingham, Ala.  
Young & Selden Co., Baltimore, Md.

**LOADING AND UNLOADING MCHY. (Portable).**  
Portable Machinery Co., Inc., Passaic, N. J.

**LOCKERS.**  
Berger Mfg. Co., Canton, Ohio.  
Dexter Metal Mfg. Co., Camden, N. J.  
Edwards Mfg. Co., Cincinnati, Ohio.

**LOCOMOTIVES.**  
INDUSTRIAL.  
Baldwin Locomotive Wks., The, Philadelphia, Pa.  
Climax Mfg. Co., Corry, Pa.  
General Equipment Co., New York, N. Y.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Porter Co., H. K., Pittsburgh, Pa.

**RAILWAY.**  
Baldwin Locomotive Wks., The, Philadelphia, Pa.  
General Equipment Co., New York, N. Y.  
Porter Co., H. K., Pittsburgh, Pa.

**LOOMS AND WEAVING MACHINERY.**  
Crompton & Knowles Loom Wks., Worcester, Mass.  
Draper Corporation, Hopedale, Mass.  
Saco-Lowell Shops, Boston, Mass.

**LUBRICANTS.**  
Albany Lubricating Co., New York, N. Y.  
Borne, Strymer Co., New York, N. Y.  
Otis Elevator Co., New York, N. Y.  
Standard Oil Co. of Louisiana, Baton Rouge, La.  
Swan & Finch Co., New York, N. Y.  
Texas Co., The, New York, N. Y.

**LUBRICANTS (Graphite).**  
Dixon Crucible Co., Joseph, Jersey City, N. J.

**LUBRICATORS.**  
Edna Brass Mfg. Co., Cincinnati, Ohio.

**LUMBER.**  
CEILING, FLOORING, SIDINGS.  
Bacon & Sons, A. S., Savannah, Ga.

**CRESOTED.**  
American Cresote Works, New Orleans, La.  
Cresoted Materials Co., Inc., New Orleans, La.

**HEAVY CONSTRUCTION, PITCH PINE, ETC.**  
Bacon & Sons, A. S., Savannah, Ga.  
Great Southern Lumber Co., Bogalusa, La.  
Industrial Lumber Co., Elizabeth, La.

**YELLOW PINE.**  
Bacon & Sons, A. S., Savannah, Ga.  
Great Southern Lumber Co., Bogalusa, La.  
Industrial Lumber Co., Elizabeth, La.

**LUMBER BUGGIES.**  
Soule Steam Feed Works, Meridian, Miss.

**LUMBER STACKERS.**  
Soule Steam Feed Works, Meridian, Miss.

**MACHINERY (Special).**  
American-Blakelee Mfg. Co., Birmingham, Ala.  
Bliss Co., E. W., Brooklyn, N. Y.  
Clark Bros. Co., Olean, N. Y.  
Foltz Mfg. & Supply Co., Hagerstown, Md.  
Kentucky Electrical Co., Owensboro, Ky.  
Kline, Louis T., Alpena, Mich.  
Lockett & Co., Ltd., A. M., New Orleans, La.  
Stratton & Bragg Co., Petersburg, Va.

**MACHINERY AND SUPPLIES (New and Second-hand).**  
American Metallic Packing Co., Lexington, Ky.  
Bay City Dredge Co., Bay City, Mich.  
Bean & Son Co., Jacksonville, Fla.  
Beckwith Machine Sales Co., The, Pittsburgh, Pa.  
Boston Iron & Metal Co., Inc., Baltimore, Md.  
Bruch, H. M., Syracuse, N. Y.  
Carey Co., Thos. F., New York, N. Y.  
Cleveland Belting & Mch. Co., The, Cleveland, O.  
Clifton-Fratt Co., The, Cincinnati, Ohio.  
Connel, Mchry & Wrecking Co., New York, N. Y.  
Contractors' Mchry. & Supply Co., Pittsburgh, Pa.  
Con. Mchry & Wreck. Co., Inc., New York, N. Y.  
Davis, J. F., Chicago, Ill.  
Duquesne Electric Co., Pittsburgh, Pa.  
Easton Machinery Co., Easton, Pa.  
Empire Mchry. & Supply Co., Norfolk, Va.  
Empire Engineering Co., Inc., New York, N. Y.  
Fuerst-Friedman Co., The, Cleveland, Ohio.  
Greene, John M., Philadelphia, Pa.  
Gregory Electric Co., Chicago, Ill.  
Harris Bros. Co., Chicago, Ill.  
Harrisburg Fdy. & Mch. Wks., Harrisburg, Pa.  
Hartfelder-Garbutt Machinery Co., Savannah, Ga.  
Hawkins-Hamilton Co., Inc., The, Richmond, Va.  
Herfurth Engine Co., Alexandria, Va.  
Hiltner's Sons Co., Henry A., Philadelphia, Pa.  
Hodgson Machinery Co., Knoxville, Tenn.  
Hoisting Engine Sales Co., Inc., New York, N. Y.  
Hoisting Machinery Co., New York, N. Y.  
Jones Machinery Co., K. L., Atlanta, Ga.  
Joseph Iron Co., Isaac, Cincinnati, Ohio.  
Keystone Pipe & Supply Co., Butler, Pa.  
Klein & Co., Nathan, New York, N. Y.  
Lane Equipment Co., J., Springfield, Ohio.  
Lehman, Chas. T., Birmingham, Ala.  
Lewis Co., Ralph R., Philadelphia, Pa.  
Lodge & Shipley Machine Tool Co., Cincinnati, O.  
Louer Co., W. B., Chicago, Ill.  
May & Turner Co., Atlanta, Ga.  
McLaughlin & Co., A. A., Cincinnati, Ohio.  
Machinery Exchange Co., New Orleans, La.  
Machinery Warehouse & Sales Co., Chicago, Ill.  
Males Co., The, New York, N. Y.  
Mallory Machinery Corp., Baltimore, Md.  
Malsby Machinery Co., Jacksonville, Fla.  
Marine Metal & Supply Co., New York, N. Y.  
Mayer, F., Chicago, Ill.  
Miller-Crippen Equipment Co., Syracuse, N. Y.  
Miller-Owen Electric Co., Inc., Pittsburgh, Pa.  
Monroe Mchry. Exchange, New York, N. Y.  
Moore Bros., Chicago, Ill.  
Mott's Sons, Geo. F., New York, Pa.  
National Equipment Corp., Philadelphia, Pa.  
Neosham & Co., V. M., Ft. Wayne, Ind.

**O'Brien Machinery Co., Philadelphia, Pa.**  
Partridge, Arthur S., St. Louis, Mo.  
Penn Supply & Equipment Co., Philadelphia, Pa.  
Pfeiffer Engineering Co., Chicago, Ill.  
Pipe & Contractors Supply Co., New York, N. Y.  
Pittsburgh Mchry. & Equip. Co., Pittsburgh, Pa.  
Potts & Co., Henry, Philadelphia, Pa.  
Power Machinery Exchange, Jersey City, N. J.  
Prentiss & Co., Inc., Henry, New York, N. Y.  
Queen City Iron & Metal Co., Charlotte, N. C.  
Randle Machinery Co., Cincinnati, Ohio.  
Reliance Equipment Co., Mobile, Ala.  
Ross Power Equipment Co., Indianapolis, Ind.  
Sachsmaier & Co., Geo., Philadelphia, Pa.  
Sanier Bros., Inc., Baltimore, Md.  
Scully Jones & Co., Chicago, Ill.  
Seeger-Walraven Co., Atlanta, Ga.  
Seyfert's Sons, Inc., L. E., Philadelphia, Pa.  
Shaw, Willis, Chicago, Ill.  
Simmons-Briggs Co., Memphis, Tenn.  
Souken-Galambra Iron & Metal Co., Kan. City, Mo.  
South Side Fdry. & Mch. Wks., Charleston, W. Va.  
Southern Iron & Metal Co., Jacksonville, Fla.  
Southern Machinery Co., Knoxville, Tenn.  
Southern States Equip. Co., New Orleans, La.  
Sterling Iron & Steel Co., Philadelphia, Pa.  
Stewart, S. J. (Electric), New Orleans, La.  
Stewart, Paul, Cincinnati, Ohio.  
Straley, Dan'l B., Crown Point, Ind.  
Sun Power Equipment Co., Philadelphia, Pa.  
Tampa Machinery Exchange, Tampa, Fla.  
Therwiller Equipment Co., Philadelphia, Pa.  
Tiley Co., Inc., J. G., Bristol, Va.  
Toomey, Frank, Inc., Philadelphia, Pa.  
Torbert, A. C., Chicago, Ill.  
United Machine Works, New York, N. Y.  
Whayne Supply Co., Roy C., Louisville, Ky.  
Whayne Mchry. Co., St. Louis, Mo.  
Wood & Co., A. N., Inc., Philadelphia, Pa.  
Zelicker Supply Co., Walter A., St. Louis, Mo.

**MACHINE TOOLS.**  
Houston, Stanwood & Gamble Co., The, Cinn. O.  
Niles-Bement-Pond Co., New York, N. Y.

**MAGNETIC SEPARATORS.**  
Buchanan Co., Inc., C. G., New York, N. Y.

**MAIL CHUTES.**  
Cutler Mail Chute Co., Rochester, N. Y.

**MANGANESE.**  
Southern Minerals Corp., Boston, Mass.

**MANTELS (Period Designs in Composition).**  
Mitchell, Vance Co., Inc., New York, N. Y.

**MECHANICAL DRAFT.**  
Buffalo Forge Co., Buffalo, N. Y.  
Clarence Fan Co., Kalamazoo, Mich.

**METALINE.**  
Metaline Co., Long Island City, N. Y.

**METAL CUTTING MACHINES.**  
Atkins & Co., Inc., E. C., Indianapolis, Ind.  
Racine Tool & Machine Co., Racine, Wis.

**METAL (For Tanks, Culverts, Roofing, etc.).**  
Trumbull Steel Co., Warren, Ohio.  
Whitaker-Glessner Co., Wheeling, W. Va.

**METAL-WORKING MACHINERY.**  
Bliss Co., E. W., Brooklyn, N. Y.  
Niles-Bement-Pond Co., New York, N. Y.

**MICROMETERS, CALIPERS, ETC.**  
Starrett Co., L. S., Athol, Mass.

**MILK FILTERS (Liquor, Milk, etc.).**  
International Filter Co., Chicago, Ill.

**MILL MACHINERY AND SUPPLIES.**  
Bailey-Lehby Co., Inc., Charleston, S. C.  
Booth Felt Co., Brooklyn, N. Y.  
Empire Mchry. & Supply Corp., Norfolk, Va.  
Foltz Mfg. & Supply Co., Hagerstown, Md.  
Lombard Iron Works, Augusta, Ga.  
Mecklenburg Iron Works, Charlotte, N. C.  
New Bern Iron Works & Steel Co., Inc., New Bern, N. C.  
Starr Co., B. F., Baltimore, Md.  
Stratton & Bragg Co., Petersburg, Va.  
Wolf Co., Chambersburg, Pa.

**MILL SUPPLIES.**  
Kries & Sons Co., Henry A., Baltimore, Md.

**MILL TIMBER.**  
Great Southern Lumber Co., Bogalusa, La.  
Moss-Downer Lumber Co., Valdosta, Ga.

**MILL WORK (Lumber, All Kinds).**  
Bacon & Sons, A. S., Savannah, Ga.

**MINE LAMPS (Electric).**  
Edison Storage Battery Co., Orange, N. J.

**MINING MACHINERY.**  
Jeffrey Mfg. Co., Columbus, Ohio.  
McLannahan-Stone Mch. Co., Holidaysburg, Pa.  
Mecklenburg Iron Works, Charlotte, N. C.  
Thew Automatic Shovel Co., Lorain, Ohio.  
Wellman-Leaver-Morgan Co., The, Cleveland, O.

**MIXERS (Concrete).**  
American Cement Mch. Co., Inc., Keokuk, Iowa.  
Bureks Machine Co., Lansing, Mich.  
Insley Manufacturing Co., Indianapolis, Ind.  
Jaeger Machine Co., Columbus, Ohio.  
Koehring Machine Co., Milwaukee, Wis.  
Northwestern Steel & Iron Wks., Eau Claire, Wis.  
Standard Scale & Supply Co., Pittsburgh, Pa.

**Hot.**  
Koehring Machine Co., Milwaukee, Wis.

**MORTAR COLORS.**  
Chattanooga Paint Co., Chattanooga, Tenn.

**MOTOR TRUCKS (Gasoline).**  
Garford Motor Truck Co., Lima, Ohio.  
General Motors Truck Co., Pontiac, Mich.  
International Motor Co., New York, N. Y.  
Republic Motor Truck Co., Inc., Alma, Mich.  
Sterling Motor Truck Co., Milwaukee, Wis.  
U. S. Motor Truck Co., The, Cincinnati, Ohio.

**MUSIC WIRE.**  
Aborn Steel Co., New York, N. Y.  
American Steel & Wire Co., Chicago, Ill.  
Waterbury Co., The, New York, N. Y.

**MAIL MACHINERY (Wire).**  
Sleeper & Hartley, Inc., Worcester, Mass.

**MAILS.**  
Cut.  
La Belle Iron Works, Steubenville, Ohio.  
Wine, ALL KING, Atlanta, Ga.  
Gulf States Steel Co., Birmingham, Ala.

**MAILS AND SPIKES.**  
Bethlehem Steel Co., South Bethlehem, Pa.  
La Belle Iron Works, Steubenville, Ohio.  
Republic Iron & Steel Co., Youngstown, Ohio.  
Stimpson Co., Edwin B., New York, N. Y.  
Youngstown Sheet & Tube Co., Youngstown, O.

**NAME PLATES (For Highways).**  
Union Iron Products Co., East Chicago, Ind.

**NICKEL (Boronic-Alloying.) [Shot].**  
American Boron Products Co., Reading, Pa.

**NOZZLES (Aerating Sprinkler, etc.).**  
Spray Engineering Co., Boston, Mass.

**NUTS.**  
HOT PRESSED.  
St. Louis Screw Co., St. Louis, Mo.  
SEMI-FINISHED.  
St. Louis Screw Co., St. Louis, Mo.

**OIL-BURNING EQUIPMENT.**  
Lockett & Co., Ltd., A. M., New Orleans, La.

**OIL CANS.**  
Wall Mfg. Supply Co., F., Allegheny, Pa.

**OIL MILL MACHINERY.**  
Buruss Engineering Co., Atlanta, Ga.

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- OILS.** (Lubricating, etc.)  
 Albany Lubricating Co., New York, N. Y.  
 Borne, Strymer Co., New York, N. Y.  
 Corden Co., Tulsa, Okla.  
 Gulf Refining Co., Pittsburgh, Pa.  
 Robinson & Son Co., Wm. C., Baltimore, Md.  
 Standard Oil Co. of Louisiana, Baton Rouge, La.  
 Swan & Finch Co., New York, N. Y.  
 Texas Co., The, New York, N. Y.
- OIL WELL MACHINERY.**  
 Cook, A. D., Lawrenceburg, Ind.  
 Keystone Pipe & Supply Co., Butler, Pa.  
 Lucey Mfg. Co., New York, N. Y.  
 Williams Bros., Itasca, N. Y.
- ORE WASHING MACHINERY.**  
 Davis Foundry & Machine Works, Rome, Ga.  
 McLanahan Stone Mach. Co., Hollidaysburg, Pa.
- ORNAMENTAL IRON WORKS.**  
 Bolles Iron & Wire Wks., J. E., Detroit, Mich.  
 Chattanooga Rfg. & Fdy. Co., Chattanooga, Tenn.  
 Dexter Metal Mfg. Co., Camden, N. J.  
 Dow Wire & Iron Works, Inc., Louisville, Ky.  
 Newman Mfg. Co., The, Cincinnati, Ohio.  
 Page Steel & Wire Co., Adrian, Mich.  
 Roanoke Iron & Bridge Wks., Inc., Roanoke, Va.  
 Sneed Architectural Iron Wks., Louisville, Ky.
- OXYGEN.**  
 Linde Air Products Co., The, New York, N. Y.
- OXY-ACETYLENE WELDING AND CUTTING OUTFIT AND SUPPLIES.**  
 Imperial Brass Mfg. Co., Chicago, Ill.
- PACKING HOUSE APPARATUS.**  
 Ottenheimer Bros., Baltimore, Md.
- PACKING.** (Asbestos, Metallic, Rubber, Leather, etc.)  
 Booth Felt Co., Inc., Brooklyn, N. Y.  
 Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.  
 Dominion Asbestos & Rub. Corp., New York, N. Y.  
 Goodrich Co., B. F., Akron, Ohio.  
 Goodyear Tire & Rubber Co., Akron, Ohio.  
 Graton & Knight Mfg. Co., Worcester, Mass.  
 Johns-Manville Co., H. W., New York, N. Y.  
 Power Specialty Co., New York, N. Y.
- PAINT.**  
**METAL SURFACES.**  
 Dixon Crucible Co., Joseph, Jersey City, N. J.  
 Du Pont de Nemours & Co., E. I., Wilmington, Del.  
 Longman & Martinez, New York, N. Y.  
 Tsch Bros., New York, N. Y.  
**PRESERVATIVE.**  
 Arco Co., Cleveland, Ohio.  
 Du Pont de Nemours & Co., E. I., Wilmington, Del.  
 Longman & Martinez, New York, N. Y.  
 Tsch Bros., New York, N. Y.  
**ROOFING, BUILDING, ETC.**  
 Chattanooga Paint Co., Chattanooga, Tenn.  
 Longman & Martinez, New York, N. Y.  
**WATER.** (For Interiors.)  
 Arco Co., Cleveland, Ohio.  
 Longman & Martinez, New York, N. Y.
- PARTITIONS.** (Metal, Wooden, Rolling.)  
 David Lupton's Sons Co., Philadelphia, Pa.  
 Detroit Steel Products Co., Detroit, Mich.
- PATENT ATTORNEYS.**  
 Brown, Eugene C., Washington, D. C.  
 Chandler & Chandler, Washington, D. C.  
 Evans & Co., Victor J., Washington, D. C.  
 Whitaker, Norman T., Washington, D. C.
- PAVING BLOCKS.** (Wood.)  
 Cresmont Materials Co., Inc., New Orleans, La.  
 Republic Creosoting Co., Indianapolis, Ind.  
 Southern Creosoting Co., Ltd., Slidell, La.  
 Southern Paving Const. Co., Chattanooga, Tenn.  
 Southern Wood Preserving Co., Atlanta, Ga.
- PAVING BRICK.**  
 Standard Brick Co., Macon, Ga.
- PAVING MIXERS.** (Concrete.)  
 American Cement Mach. Co., Inc., Keokuk, Iowa.  
 Jaeger Machine Co., The, Columbus, Ohio.  
 Standard Scale & Supply Co., Pittsburgh, Pa.
- PAVING PLANTS.** (Asphalt.)  
 Cummer & Son Co., F. D., Cleveland, Ohio.
- PERFORATED METAL.**  
 Caldwell & Son Co., H. W., Chicago, Ill.  
 Erdle Perforating Co., Rochester, N. Y.  
 Harrington & King Perforating Co., Chicago, Ill.  
 Hendricks Mfg. Co., The, Carbondale, Pa.  
 Manhattan Perforated Metal Co., New York, N. Y.  
 Mundt & Sons, Charles, Jersey City, N. J.
- PETROLEUM REFINERS.**  
 Corden & Co., Tulsa, Okla.  
 Gulf Refining Co., Pittsburgh, Pa.  
 Standard Oil Co. of Louisiana, Baton Rouge, La.  
 Texas Co., The, New York, N. Y.
- PHOSPHATE MACHINERY.**  
 American Process Co., New York, N. Y.  
 Bailey-Libby Co., The, Charleston, S. C.  
 K-B Pulverizer Co., New York, N. Y.  
 McLanahan Stone Mach. Co., Hollidaysburg, Pa.  
 Volk & Murdoch Co., Charleston, S. C.
- PIG IRON.**  
 Alabama Co., The, Birmingham, Ala.  
 Bethlehem Steel Co., South Bethlehem, Pa.  
 Brier Hill Steel Co., Youngstown, Ohio.  
 Hammond-Byrd Co., The, Birmingham, Ala.  
 La Belle Iron Works, Steubenville, Ohio.  
 Republic Iron & Steel Co., Youngstown, Ohio.  
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.
- PILING.** (Creosoted.)  
 American Creosote Works, New Orleans, La.  
 Cresmont Material Co., Inc., New Orleans, La.  
 Southern Creosoting Co., Ltd., Slidell, La.  
 Southern Paving Const. Co., Chattanooga, Tenn.
- PILLOW BLOCKS.**  
 Caldwell & Son Co., H. W., Chicago, Ill.  
 Golden's Foundry & Machine Co., Columbus, Ga.  
 Medart Patent Pulley Co., St. Louis, Mo.
- SHAFT.**  
 Bond Fdy. & Mach. Co., Mannheim, Pa.
- PINE.** (Southern Long Leaf.)  
 Great Southern Lumber Co., Bogalusa, La.
- PIPE.**  
 La Belle Iron Works, Steubenville, Ohio.  
 National Tube Co., Pittsburgh, Pa.  
 Youngstown Sheet & Tube Co., Youngstown, Ohio.
- CAST IRON.**  
 American Cast Iron Pipe Co., Birmingham, Ala.  
 Cast Iron Pipe & Foundry Bureau, New York, N. Y.  
 Central Foundry Co., New York, N. Y.  
 Glamorgan Pipe & Foundry Co., Lynchburg, Va.  
 National Cast Iron Pipe Co., Birmingham, Ala.  
 U. S. Cast Iron Pipe & Fdy. Co., Burlington, N. J.  
 Wood & Co., R. D., Philadelphia, Pa.
- COIL.**  
 Frick Co., Waynesboro, Pa.
- RIVETED.**  
 Abendroth & Root Mfg. Co., Newburgh, N. Y.  
 New Bern I. Wks. & S. Co., Inc., New Bern, N. C.
- SECOND-HAND.**  
 Cassel & Co., B., Chattanooga, Tenn.  
 Griffith, James F., Philadelphia, Pa.  
 Keystone Pipe & Supply Co., Butler, Pa.  
 Marine Metal & Supply Co., New York, N. Y.  
 Gulo Pipe Co., Findlay, Ohio.
- Peerless Iron Pipe Exe., Inc., New York, N. Y.**  
**Pipe & Contractors' Supply Co., New York, N. Y.**
- SPIRAL RIVETED.**  
 Abendroth & Root Mfg. Co., Newburgh, N. Y.  
 American Spiral Pipe Works, Chicago, Ill.
- SPIRAL STEEL.**  
 Standard Spiral Pipe Works, Chicago, Ill.
- STEEL.**  
 National Tube Co., Pittsburgh, Pa.  
 La Belle Iron Works, Steubenville, Ohio.  
 Republic Iron & Steel Co., Youngstown, Ohio.  
 Youngstown Sheet & Tube Co., Youngstown, Ohio.
- WOOD.**  
 Michigan Pipe Co., Bay City, Mich.  
 Pacific Tank & Pipe Co., San Francisco, Cal.  
 Standard Wood Pipe Co., Williamsport, Pa.  
 Wyckoff & Son Co., A., Elmira, N. Y.
- WROUGHT IRON.**  
 Youngstown Sheet & Tube Co., Youngstown, Ohio
- PIPES & FITTINGS.** (Acid Proof.)  
 Durlon Casting Co., Dayton, Ohio.
- PIPE COVERINGS.**  
 Magnesia Association of America, Phila., Pa.
- PIPE FITTINGS.**  
 American Cast Iron Pipe Co., Birmingham, Ala.  
 Crane Co., Chicago, Ill.  
 Griffith, James F., Philadelphia, Pa.  
 Kries & Sons Co., Henry A., Baltimore, Md.  
 Lunkenheimer Co., The, Cincinnati, Ohio.  
 National Cast Iron Pipe Co., Birmingham, Ala.
- PIPE UNIONS AND JOINTS.**  
 Dart Mfg. Co., E. M., Providence, R. I.
- PISTON RINGS.** (Compressors, Engines, etc.)  
 The Evertight Piston Ring Co., St. Louis, Mo.
- PITCH.**  
 Barrett Co., New York, N. Y.
- PLATES.**  
**STEEL.**  
 Allegheny Steel Co., Pittsburgh, Pa.  
 Cincinnati Iron & Steel Co., Cincinnati, Ohio.  
 Midvale Steel & Ordnance Co., Philadelphia, Pa.  
 Wood Iron & Steel Co., Alan, Philadelphia, Pa.
- POLES.**  
 Northrup & Sons, C. E., Galatin, Tenn.
- POLES.** (Creosoted.)  
 American Creosote Works, New Orleans, La.  
 Cresmont Material Co., Inc., New Orleans, La.  
 Southern Creosoting Co., Ltd., Slidell, La.  
 Southern Paving Const. Co., Chattanooga, Tenn.  
 Southern Wood Preserving Co., Atlanta, Ga.
- POLISHING MACHINERY.** (Wheels, Blocks.)  
 Vitrined Wheel Co., Westfield, Mass.
- POSTS.** (Cast Iron.) (Railway and Highway.)  
 Northrup & Sons, C. E., Galatin, Tenn.  
 U. S. Cast Iron Pipe & Fdy. Co., Burlington, N. J.
- POST CAPS.**  
 Van Dorn Iron Works Co., The, Cleveland, Ohio.
- POWER TRANSMISSION MACHINERY.**  
 Alvey-Ferguson Co., Inc., Cincinnati, Ohio.  
 Leiby-Libby Co., Charleston, S. C.  
 Bond Fdy. & Mach. Co., Mannheim, Pa.  
 Caldwell & Son Co., H. W., Chicago, Ill.  
 Caldwell Co., W. E., Louisville, Ky.  
 Cresson-Morris Co., Philadelphia, Pa.  
 Dodge Sales & Engr. Co., Mishawaka, Ind.  
 Golden's Foundry & Machine Co., Columbus, Ga.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 Link-Belt Co., Philadelphia, Pa.  
 Medart Patent Pulley Co., St. Louis, Mo.  
 Morse Chain Co., Itasca, N. Y.  
 Scheldt Iron Works, Macon, Ga.  
 Smith-Courtney Co., Richmond, Va.  
 Standard Pressed Steel Co., Philadelphia, Pa.  
 The American Pulley Co., Philadelphia, Pa.  
 Wolf Co., The, Chambersburg, Pa.  
 Wood's Sons, T. B., Chambersburg, Pa.
- PRESERVATIVE.** (Canvas.)  
 Robeson Preserve Products Co., Port Huron, Mich.
- PRESSES.**  
**BALING, COTTONSEED OIL, ETC., HYDRAULIC AND POWER.**  
 Anderson Co., The, V. D., Cleveland, Ohio.  
 Bauer Bros. Co., The, Springfield, Ohio.  
 Bunning & Boscott Press Co., Inc., Syracuse, N. Y.  
 Cardwell Machine Co., Richmond, Va.  
 Continental Gin Co., Birmingham, Ala.  
 French Oil Mill Mchry. Co., The, Piqua, Ohio.  
 Murray Co., The, Atlanta, Ga.  
 Ripley Foundry & Machine Co., Ripley, Ohio.  
 Saco-Lowell Shops, Boston, Mass.
- METAL STAMPING.**  
 Stimpson Co., Edwin B., Brooklyn, N. Y.
- STAMPING.**  
 Ames Machine Co., Max, Bridgeport, Conn.  
 Bliss Co., E. W., Brooklyn, N. Y.
- PRINTERS.** (Book, Catalog, Job, etc.)  
 Robert & Son, Birmingham, Ala.  
 Fleet-McGinley Co., Baltimore, Md.
- PRISON WORK.**  
 Van Dorn Iron Works, The, Cleveland, Ohio.
- PULLEYS.**  
**FRICTION CLUTCH.**  
 Caldwell & Son Co., H. W., Chicago, Ill.  
 Caldwell Co., W. E., Louisville, Ky.  
 Cresson-Morris Co., Philadelphia, Pa.  
 Dodge Sales & Engr. Co., Mishawaka, Ind.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 Medart Patent Pulley Co., St. Louis, Mo.  
 Standard Pressed Steel Co., Philadelphia, Pa.  
 The American Pulley Co., Philadelphia, Pa.  
 Wood's Sons, T. B., Chambersburg, Pa.
- STEEL RIM.**  
 Medart Patent Pulley Co., St. Louis, Mo.  
 The American Pulley Co., Philadelphia, Pa.
- WOOD SPLIT.**  
 Caldwell & Son Co., H. W., Chicago, Ill.  
 Medart Patent Pulley Co., St. Louis, Mo.
- PULLEYS, SHAFTING AND HANGERS.**  
 Bond Fdy. & Mach. Co., Mannheim, Pa.  
 Caldwell & Son Co., H. W., Chicago, Ill.  
 Conway & Co., Cincinnati, Ohio.  
 Cresson-Morris Co., Philadelphia, Pa.  
 Dodge Sales & Engr. Co., Mishawaka, Ind.  
 Golden's Foundry & Machine Co., Columbus, Ga.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 Medart Patent Pulley Co., St. Louis, Mo.  
 Standard Pressed Steel Co., Philadelphia, Pa.  
 The American Pulley Co., Philadelphia, Pa.  
 Wood's Sons, T. B., Chambersburg, Pa.
- PULVERIZERS.**  
 American Pulverizer Co., St. Louis, Mo.  
 Austin Mfg. Co., Chicago, Ill.  
 Excelsior Tool & Mach. Co., East St. Louis, Mo.  
 Fuller-Lehigh Co., Fullerton, Pa.  
 Grunfelder Pat. Crusher & Pulv. Co., St. Louis, Mo.  
 Jeffrey Mfg. Co., Columbus, Ohio.  
 K-B Pulverizer Co., Inc., New York, N. Y.  
 McLanahan Stone Mach. Co., Hollidaysburg, Pa.  
 Raymond Bros. Impact, Pulv. Co., Chicago, Ill.  
 Fraylor Engineering & Mfg. Co., Allentown, Pa.  
 Western Wheeled Scraper Co., Aurora, Ill.  
 Williams Pat. Crusher & Pulv. Co., Chicago, Ill.
- PUMPING MACHINERY.**  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Cook, A. D., Lawrenceburg, Ind.  
 Dayton-Dick Co., Quincy, Ill.  
 Dean Bros. Steam Pump Wks., Indianapolis, Ind.
- Emerson Pump & Valve Co., Alexandria, Va.**  
**Goulds Mfg. Co., Seneca Falls, N. Y.**  
**Lea-Courtney Co., Newark, N. J.**  
**Lucey Mfg. Co., New York, N. Y.**  
**Moffatt Machy. Mfg. Co., Charlotte, N. C.**  
**Morris Machine Works, Baldwinville, N. Y.**  
**Mutual Foundry & Machine Co., Atlanta, Ga.**  
**Myers & Bro., F. E., Ashland, Ohio.**  
**National Transit Pump & Mch. Co., Oil City, Pa.**  
**Reilly Mfg. Co., J. J., Louisville, Ky.**  
**Vogt Bros. Mfg. Co., Louisville, Ky.**  
**Wood & Co., R. D., Philadelphia, Pa.**  
**Worthington Pump & Mch. Corp., New York, N. Y.**
- PUMPS.**  
**ACID PROOF.**  
 Durlon Casting Co., Dayton, Ohio.
- AIR LIFT.**  
 Ingersoll-Rand Co., New York, N. Y.  
 Sullivan Mchry. Co., Chicago, Ill.
- ASPHALT AND ROAD OIL.**  
 Kinney Mfg. Co., Boston, Mass.
- BOILER FEED.**  
 Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Dayton-Dick Co., Quincy, Ill.  
 Dean Bros. Steam Pump Wks., Indianapolis, Ind.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Lea-Courtney Co., Newark, N. J.  
 Lucey Mfg. Co., New York, N. Y.  
 Moffatt Machy. Mfg. Co., Charlotte, N. C.  
 Murray Iron Works Co., Burlington, Iowa.  
 Myers & Bro., F. E., Ashland, Ohio.  
 Reilly Mfg. Co., J. J., Louisville, Ky.  
 Vogt Bros. Mfg. Co., Louisville, Ky.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- CENTRIFUGAL.**  
 Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 Buffalo Steam Pump Co., Buffalo, N. Y.  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Dayton-Dick Co., Quincy, Ill.  
 Erie Pump & Engine Co., Medina, N. Y.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Lea-Courtney Co., Newark, N. J.  
 Lucey Mfg. Co., New York, N. Y.  
 Morris Machine Works, Baldwinville, N. Y.  
 Mutual Foundry & Machine Co., Atlanta, Ga.  
 Novo Engine Co., Lansing, Mich.  
 Wood & Co., R. D., Philadelphia, Pa.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- DEEP WELL.**  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Cook, A. D., Lawrenceburg, Ind.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Layne & Bowler Co., Memphis, Tenn.  
 Novo Engine Co., Lansing, Mich.
- DIAPHRAGM.**  
 Novo Engine Co., Lansing, Mich.
- DREDGING.**  
 Buffalo Steam Pump Works, Buffalo, N. Y.  
 Erie Pump & Engine Co., Medina, N. Y.  
 Morris Machine Works, Baldwinville, N. Y.  
 Mutual Foundry & Machine Co., Atlanta, Ga.  
 Wood & Co., R. D., Philadelphia, Pa.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- FUEL-OIL.**  
 Lockett & Co., Ltd., A. M., New Orleans, La.
- HYDRAULIC.**  
 Dunning & Boschert Press Co., Inc., Syracuse, N. Y.  
 Buffalo Steam Pump Co., Buffalo, N. Y.  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Cardwell Machine Co., Richmond, Va.  
 Dean Bros. Steam Pump Wks., Indianapolis, Ind.  
 French Oil Mill Machinery Co., The, Piqua, Ohio.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- OIL.**  
 Lockett & Co., Ltd., A. M., New Orleans, La.
- POWER.**  
 Lea-Courtney Co., Newark, N. J.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- STEAM.**  
 Buffalo Steam Pump Co., Buffalo, N. Y.  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Cook, A. D., Lawrenceburg, Ind.  
 Dean Bros. Steam Pump Wks., Indianapolis, Ind.  
 Emerson Pump & Valve Co., Alexandria, Va.  
 Lucey Mfg. Co., New York, N. Y.  
 Murray Iron Works Co., Burlington, Iowa.  
 National Transit Pump & Mch. Co., Oil City, Pa.  
 Reilly Mfg. Co., J. J., Louisville, Ky.  
 Vogt Bros. Mfg. Co., Louisville, Ky.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- TRIPLEX POWER.**  
 Novo Engine Co., Lansing, Mich.
- VACUUM.**  
 Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 Cameron Steam Pump Wks., A.S., New York, N. Y.  
 Dean Bros. Steam Pump Wks., Indianapolis, Ind.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- WATER WORKS.**  
 Dayton-Dick Co., Quincy, Ill.  
 Goulds Mfg. Co., Seneca Falls, N. Y.  
 Lea-Courtney Co., Newark, N. J.  
 Worthington Pump & Mch. Corp., New York, N. Y.
- PUMP LEATHERS.**  
 Graton & Knight Mfg. Co., Worcester, Mass.
- PUNCHING AND SHEARING MACHINERY.**  
 Bliss Co., E. W., Brooklyn, N. Y.
- RAILROADS.** (Offering Industrial, Agricultural and Commercial Opportunities.)  
 Carolina, Clinch, & O. R. R., Johnson City, Tenn.  
 Central of Georgia Railway, Savannah, Ga.  
 Georgia & Florida Rwy. Co., Augusta, Ga.  
 Model Land Company of the Flagler System, St. Augustine, Fla.
- RAILROAD EQUIPMENT AND SUPPLIES.**  
 (New and Second-hand.)  
 American Frog & Switch Co., Hamilton, Ohio.  
 American Metallic Packing Co., Lexington, Ky.  
 American Rwy. Equipment Co., Pittsburgh, Pa.  
 Atlantic Equipment Co., The, New York, N. Y.  
 Bailey-Libby Co., The, Charleston, S. C.  
 Birmingham Rail & Loco. Co., Birmingham, Ala.  
 Carey Co., Thos. F., New York, N. Y.  
 Cincinnati Frig. & Switch Co., Cincinnati, Ohio.  
 Foster Co., L. B., Pittsburgh, Pa.  
 General Equipment Co., New York, N. Y.  
 Georgia Car & Locomotive Co., Atlanta, Ga.  
 Granville Co., Joseph D., St. Louis, Mo.  
 Harris Bros. Co., Chicago, Ill.  
 Hartley-Garbutt Machinery Co., Savannah, Ga.  
 Hoffman & Co., Inc., E. C., Baltimore, Md.  
 Houston Railway Car Co., Houston, Tex.  
 Hyde & Company, Pittsburgh, Pa.  
 Joseph Iron Co., The, Isaac, Cincinnati, Ohio.  
 Kilby Frog & Switch Co., Birmingham, Ala.  
 Kiehlans Co., H., Pittsburgh, Pa.  
 Light Railway Equipment Co., Philadelphia, Pa.  
 Machinery & Supply Co., Greenboro, N. C.  
 Males Co., The, New York, N. Y.  
 May & Turner Co., Atlanta, Ga.  
 Metzger, Louis H., Mobile, Ala.  
 Miller-Crippen Equip. Co., Inc., Syracuse, N. Y.  
 Moore Bros., Chicago, Ill.  
 Morrison & Rismann, Buffalo, N. Y.  
 National Steel Rail Co., St. Louis, Mo.  
 Pittsburgh Mchry. & Equip. Co., Pittsburgh, Pa.  
 Robinson & Orr, Pittsburgh, Pa.  
 Shaw, Willis, Chicago, Ill.
- Sherwood, E. C., New York, N. Y.**  
**Southern Iron & Metal Co., Jacksonville, Fla.**  
**Torbett, A. C., Chicago, Ill.**  
**United Amer. Iron & Steel Co., New York, N. Y.**  
**United Machine Works, New York, N. Y.**  
**Weller Co., Inc., H. C., Jacksonville, Fla.**  
**Weir Frog Co., Cincinnati, Ohio.**  
**West Virginia Rail Co., Huntington, W. Va.**  
**Wilson & Co., E. H., Philadelphia, Pa.**  
**Wilson Mach. Co., St. Louis, Mo.**  
**Yampolsky, Geo., Clarkburg, W. Va.**  
**Zelnicke Supply Co., Walter A., St. Louis, Mo.**
- RAILROAD CARS.** (Box, Flat, Gondola, American Rwy. Equipment Co., Pittsburgh, Pa.)  
 Houston Railway Car Co., Houston, Tex.
- RAILROAD FROGS AND SWITCHES.**  
 American Frog & Switch Co., Hamilton, Ohio.  
 American Rwy. Equipment Co., Pittsburgh, Pa.  
 Cincinnati Frig. & Switch Co., Cincinnati, Ohio.  
 Frank, M. K., Pittsburgh, Pa.  
 Hyde & Company, Pittsburgh, Pa.  
 Kilby Frog & Switch Co., Birmingham, Ala.  
 Light Railway Equipment Co., Philadelphia, Pa.  
 Metzger, Louis H., Mobile, Ala.  
 Morrison & Rismann, Buffalo, N. Y.  
 Robinson & Orr, Pittsburgh, Pa.  
 Weir Frog Co., Cincinnati, Ohio.
- RAILS.** (Steel.)  
 Amer. Metallic Packing Co., Inc., Lexington, Ky.  
 American Rwy. Equipment Co., Pittsburgh, Pa.  
 Bethlehem Steel Co., South Bethlehem, Pa.  
 Cambria Steel Co., Philadelphia, Pa.  
 Carey Co., Thos. F., New York, N. Y.  
 Carnegie Steel Co., Pittsburgh, Pa.  
 Foster Co., L. B., Pittsburgh, Pa.  
 Frank, M. K., Pittsburgh, Pa.  
 Hoffman Co., Inc., R. C., Baltimore, Md.  
 Huntington Materials Co., Huntington, W. Va.  
 Hyde & Company, Pittsburgh, Pa.  
 Lackawanna Steel Co., Lackawanna, N. Y.  
 Lewis & Co., H., New York, N. Y.  
 Malsby Machinery Co., Jacksonville, Fla.  
 Metzger, Louis H., Mobile, Ala.  
 Morrison & Rismann, Buffalo, N. Y.  
 National Steel Rail Co., St. Louis, Mo.  
 Republic Iron & Steel Co., Youngstown, Ohio.  
 Robinson & Orr, Pittsburgh, Pa.  
 Sherwood, E. C., New York, N. Y.  
 Sweet's Steel Co., Williamsport, Pa.  
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
 United Amer. Iron & Steel Co., New York, N. Y.  
 United Virginia Rail Co., Huntington, W. Va.  
 Wilson & Co., E. H., Philadelphia, Pa.  
 Yampolsky, Geo., Clarkburg, W. Va.  
 Zelnicke Supply Co., Walter A., St. Louis, Mo.
- RAILWAYS.** (Industrial.)  
 Chase Foundry & Mfg. Co., Columbus, Ohio.  
 Cincinnati Frig. & Switch Co., Cincinnati, Ohio.  
 Hunt Co., Inc., C. W., West New Brighton, N. Y.
- RAILWAY REPAIR SHOPS EQUIPMENT.**  
 Niles-Bement-Pond Co., New York, N. Y.
- REAL ESTATE INVESTMENT.**  
 Jensen Real Estate & Ins. Co., Birmingham, Ala.
- REFRIGERATING MACHINERY AND PARATUS.**  
 Arctic Ice Machine Co., Canton, Ohio.  
 Berryman's Refrigerating Mch. Ex. Fdls., R. Bredt Co., St. Louis, Mo.  
 De La Vergne Mch. Co., New York, N. Y.  
 Ottenheimer Bros., Baltimore, Md.  
 Vilter Mfg. Co., New York, N. Y.  
 Vogt Bros. Mfg. Co., Louisville, Ky.  
 Vogt Mch. Co., Inc., Henry, Louisville, Ky.
- REINFORCING PLATES.** (Reinforcing Bars.)  
 Berger Mfg. Co., Canton, Ohio.  
 Dayton Bester & Holst Co., Dayton, Ohio.
- RINGS.** (Piston.)  
 The Evertight Piston Ring Co., St. Louis, Mo.
- RIVER AND HARBOR IMPROVEMENTS.**  
 (Dredging, Docks, Wharves, etc.)  
 Atlantic, Gulf and Pacific Co., New York, N. Y.
- RIVETS.** (Copper, Iron, Brass, Steel.)  
 Stimpson Co., Edwin B., New York, N. Y.
- RIVETERS.** (Pneumatic.)  
 Ingersoll-Rand Co., New York, N. Y.
- ROAD EXPANSION JOINTS.**  
 Aspromet Company, Pittsburgh, Pa.
- ROAD AND STREET MACHINERY.**  
 Austin-Western Road Mch. Co., The, Chicago, Ill.  
 Ball Engine Co., (Erie Steam Shovel Co.), Erie, Pa.  
 Buffalo-Springfield Roller Co., Springfield, Ohio.  
 Erie Machine Shops, Erie, Pa.  
 Keystone Driller Co., Beaver Falls, Pa.  
 Kilbourne & Jacobs Mfg. Co., Columbus, Ohio.  
 Kinney Mfg. Co., Boston, Mass.  
 Northwestern Steel & Iron Wks., East Chicago, Ind.  
 Ruggles-Coles Engineering Co., York, Pa.  
 The Automatic Shovel Co., Lorain, Ohio.  
 Universal Road Mch. Co., Kingston, N. Y.  
 Western Wheeled Scraper Co., Aurora, Ill.
- ROAD AND STREET MATERIAL.**  
 Barber Asphalt Paving Co., Philadelphia, Pa.  
 Barrett Co., New York, N. Y.  
 Birmingham Slag Co., Birmingham, Ala.  
 Standard Oil Co. of Louisiana, Baton Rouge, La.  
 Texas Co., The, New York, N. Y.
- ROAD BINDERS.**  
 Barrett Co., New York, N. Y.
- ROAD GRADER AND SCRAPERS.**  
 Austin-Western Road Mch. Co., Chicago, Ill.  
 Ball Engine Co., (Erie Steam Shovel Co.), Erie, Pa.  
 Western Wheeled Scraper Co., Aurora, Ill.
- ROAD OILS AND PRESERVATIVES.**  
 Barrett Co., Philadelphia, Pa.  
 Du Pont de Nemours & Co., E. I., Wilmington, Del.  
 Gulf Refining Co., Pittsburgh, Pa.  
 Standard Oil Co. of Louisiana, Baton Rouge, La.  
 Texas Co., The, New York, N. Y.
- ROAD OILING MACHINERY.**  
 Kinney Mfg. Co., Boston, Mass.
- ROAD ROLLER.** (Steam.)  
 Austin-Western Road Mch. Co., Chicago, Ill.  
 Buffalo-Springfield Roller Co., Springfield, Ohio.  
 Erie Machine Shops, Erie, Pa.  
 Universal Road Mch. Co., Kingston, N. Y.
- ROAD SCARIFIERS.**  
 Buffalo-Springfield Roller Co., Springfield, Ohio.
- ROAD SIGNS.**  
 Union Iron Products Co., East Chicago, Ind.
- RODS.** (Welding.)  
 Page Steel & Wire Co., New York, N. Y.
- ROOFING.**  
**CEMENT TILE.**  
 American Cement Tile Mfg. Co., Pittsburgh, Pa.  
**READY PREPARED.** (Felt, Tar, Asbestos, etc.)  
 American Sheet & Tin Plate Co., Pittsburgh, Pa.  
 Aspromet Company, Pittsburgh, Pa.  
 Barrett Co., New York, N. Y.  
 Johns-Manville Co., H. W., New York, N. Y.
- METAL SHINGLES.**  
 Berger Mfg. Co., Canton, Ohio.  
 Cortright Metal Roofing Co., Philadelphia, Pa.  
 Hyndman Roofing Co., Cincinnati, Ohio.
- SLATE.**  
 Vendor Slate Co., Inc., Bangor, Pa.



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**STAVE AND HEADING MACHINERY.**  
Gerlach Co., Peter, Cleveland, Ohio.

**STEAM FEEDS.**  
Koule Steam Feed Works, Meridian, Miss.

**STEAM HAMMERS.**  
Niles-Bement-Pond Co., New York, N. Y.

**STEAM SHOVELS.**  
Ball Engine Co. (Erie Steam Shovel Co.) Erie, Pa.  
Fairbanks Steam Shovel Co., Marion, Ohio.  
General Equipment Co., New York, N. Y.  
Keyston Bridge Co., Beaver Falls, Pa.  
Osgood Co., The, Marion, Ohio.  
Sherwood, E. C., New York, N. Y.  
Thew Automatic Shovel Co., Lorain, Ohio.

**STEAM SHOVEL CHAINS.**  
American Chain Co., Bridgeport, Conn.

**STEAM SPECIALTIES.**  
Crane Co., Chicago, Ill.  
Lunkenheimer Co., The, Cincinnati, Ohio.

**STEAM TRAPS.**  
Johns-Manville Co., H. W., New York, N. Y.

**STEEL.**  
Aborn Steel Co., New York, N. Y.  
American Steel Export Co., New York, N. Y.  
Atlantic Steel Co., Atlanta, Ga.  
Bethlehem Steel Co., South Bethlehem, Pa.  
Carnegie Steel Co., Pittsburgh, Pa.  
Dietrich Bros., Baltimore, Md.  
Hoffman Steel Co., Inc., B. C., Baltimore, Md.  
Hoffman-Spruce Co., Philadelphia, Pa.  
International High Speed Steel Co., New York, N. Y.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.  
La Belle Iron Works, Steubenville, Ohio.  
Lackawanna Steel Co., Lackawanna, N. Y.  
Memphis Steel Const. Co. of Pa., Pittsburgh, Pa.  
Midvale Steel & Ordnance Co., Philadelphia, Pa.  
Republic Steel Co., Warren, Ohio.  
Trumbull Steel Co., Warren, Ohio.  
Tennessee Coal, Iron & Beaver Falls, Pa.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Ward's Sons Co., Edgar T., Philadelphia, Pa.  
Whitaker-Glesner Co., Wheeling, W. Va.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.  
Vanadium-Alloys Steel Co., Pittsburgh, Pa.  
Youngstown Sheet & Tube Co., The, Youngstown, O.

**STEEL.**  
**DRILL.**  
Aborn Steel Co., New York, N. Y.  
International High Speed Steel Co., New York, N. Y.  
Vanadium-Alloys Steel Co., Pittsburgh, Pa.  
Ward's Sons Co., Edgar T., Philadelphia, Pa.

**TOOL.**  
(High Speed.)  
Aborn Steel Co., New York, N. Y.  
American Steel Export Co., New York, N. Y.  
Bethlehem Steel Co., South Bethlehem, Pa.  
International High Speed Steel Co., New York, N. Y.  
McKenna Brass & Mfg. Co., Inc., Pittsburgh, Pa.  
Midvale Steel & Ordnance Co., Philadelphia, Pa.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Vanadium-Alloys Steel Co., Pittsburgh, Pa.  
Ward's Sons Co., Edgar T., Philadelphia, Pa.

**VANADIUM.**  
Aborn Steel Co., New York, N. Y.  
Carnegie Steel Co., Pittsburgh, Pa.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Vanadium-Alloys Steel Co., Pittsburgh, Pa.

**STEEL BUILDINGS.**  
**DESIGNERS, BUILDERS.**  
American Bridge Co., New York, N. Y.  
Belmont Iron Works, Philadelphia, Pa.  
Champion Bridge Co., Wilmington, Ohio.  
Chesapeake Iron Works, Baltimore, Md.  
Des Moines Bridge & Iron Co., Des Moines, Iowa.  
International Steel Co., Iron Co., Evansville, Ind.  
Memphis Steel Const. Co. of Pa., Pittsburgh, Pa.  
Union Iron Co., Philadelphia, Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Richmond Structural Steel Co., Richmond, Va.  
Scaife & Sons Co., Wm. B., Pittsburgh, Pa.  
Snead Architectural Iron Works, Louisville, Ky.  
Steel Fabricating Co., Chicago Heights, Ill.  
Vindicator Bridge & Iron Co., Ronnoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

**READY MADE. (Sectional.)**  
Steel Fabricating Co., Chicago Heights, Ill.

**STEEL CASTINGS.**  
Crucible Steel Castings Co., Lansdowne, Pa.  
Hoffman & Co., Inc., R. C., Baltimore, Md.  
Midvale Steel & Ordnance Co., Philadelphia, Pa.  
Riverside Steel Castings Co., Newark, N. J.

**STEEL MILL EQUIPMENT.**  
Treadwell Engineering Co., Easton, Pa.

**STEEL PLANT EQUIPMENT.**  
Wellman-Leaver-Morgan Co., The, Cleveland, O.

**STEEL PLATE WORK.**  
Casey-Hedgus Co., Chattanooga, Tenn.  
Chattanooga Boiler & Tank Co., Chat'n'ga, Tenn.  
Chesapeake Iron Works, Baltimore, Md.  
Chicago Bridge & Iron Works, Chicago, Ill.  
Hoffman & Co., Inc., R. C., Baltimore, Md.  
Memphis Steel Const. Co. of Pa., Pittsburgh, Pa.  
Phoenix Iron Co., Philadelphia, Pa.  
Scaife & Sons, Wm. B., Pittsburgh, Pa.  
Struthers-Wells Co., Warren, Pa.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

**STEEL SHEET PILING.**  
Carnegie Steel Co., Pittsburgh, Pa.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.  
Lackawanna Steel Co., Lackawanna, N. Y.  
Zelnicler Supply Co., Walter A., St. Louis, Mo.

**STENCILS.**  
Baltimore Office Supply Co., Inc., Baltimore, Md.  
Dorman Co., J. F. W., Baltimore, Md.

**STERILIZERS. (For Water Supplies.)**  
Electric Ozone Sterilizer Co., Chicago, Ill.

**STOCK CERTIFICATES, BONDS AND SEALS.**  
Baltimore Office Supply Co., Inc., Baltimore, Md.  
Dorman Co., J. F. W., Baltimore, Md.

**STOKERS. (Mechanical.)**  
Rabeck & Wilcox Co., New York, N. Y.  
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**STONE. (Building.)**  
Ind. Limestone Quarrymen's Assn., Bedford, Ind.

**STONE AND GRAVEL PLANT EQUIPMENT.**  
Weller Mfg. Co., Chicago, Ill.

**STORAGE BATTERIES.**  
Edison Storage Battery Co., Orange, N. J.  
Electric Storage Battery Co., Philadelphia, Pa.

**STORE FRONTS. (Complete.)**  
International Steel & Iron Co., Evansville, Ind.

**STORE FRONTS. (Glass.)**  
Hirse-Turner Glass Co., Washington, D. C.

**STOVE TRIMMINGS.**  
anner Mfg. Co., The, Cleveland, Ohio.

**STRAPPING LEATHER.**  
Gration & Knight Mfg. Co., Worcester, Mass.

**STRUCTURAL STEEL AND IRON.**  
American Bridge Co., New York, N. Y.  
Belmont Iron Works, Philadelphia, Pa.  
Bethlehem Steel Co., South Bethlehem, Pa.  
Carnegie Steel Co., Pittsburgh, Pa.

Champion Bridge Co., Wilmington, Ohio.  
 Chesapeake Iron Works, Baltimore, Md.  
 Cincinnati Iron & Steel Co., Cincinnati, Ohio.  
 Des Moines Bridge & Iron Co., Des Moines, Iowa.  
 Dietrich Bros., Baltimore, Md.  
 Hoffman & Co., Inc., R. C., Baltimore, Md.  
 International Steel & Iron Co., Evansville, Ind.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 Lackawanna Steel Co., Lackawanna, N. Y.  
 Memphis Steel Const. Co., of Pa., Pittsburgh, Pa.  
 Midvale Steel & Ordnance Co., Philadelphia, Pa.  
 Phoenix Iron Co., Philadelphia, Pa.  
 Pittsburgh-Des Moines Steel Co., Louisville, Ky.  
 Reilly Mfg. Co., J. J., Louisville, Ky.  
 Republic Iron & Steel Co., Youngstown, Ohio.  
 Richmond Structural Steel Co., Richmond, Va.  
 Roanoke Iron & Bridge Works, Roanoke, Va.  
 Sauer Structural Iron Works, Louisville, Ky.  
 Steel Products Co., The, Savannah, Ga.  
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
 Vincennes Bridge Co., Vincennes, Ind.  
 Virginia Bridge & Iron Co., Roanoke, Va.  
 Walsh & Weldner Boiler Co., Chattanooga, Tenn.  
**SULPHUR.**  
 Freeport Sulphur Co., Freeport, Texas.  
**SULPHURIC ACID.**  
 Davison Chemical Co., Baltimore, Md.  
 Du Pont de Nemours & Co., E. I., Wilm'ton, D.  
**SUPER-HEATERS.** (Steam.)  
 Babcock & Wilcox Co., New York, N. Y.  
 Power Specialty Co., New York, N. Y.  
**SURVEYING INSTRUMENTS.**  
 Weber & Co., F., Philadelphia, Pa.  
**SWINGING ENGINES.**  
 Duke Engine Co., Grand Haven, Mich.  
**SWITCHBOARDS, SWITCHES, ETC.**  
 General Electric Co., Schenectady, N. Y.  
 West-house Elec. & Mfg. Co., East Pittsburgh, Pa.  
**SWITCHSTANDS.**  
 Bethlehem Steel Co., South Bethlehem, Pa.  
 Weir Frog Co., Cincinnati, Ohio.  
**TACKLE BLOCKS.** (For Wire or Manila Rope.)  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Topping Bros., New York, N. Y.  
**TALC PRODUCTS.**  
 De Soto Talc Co., Chatsworth, Ga.  
 Harford Talc Co., Inc., The, Baltimore, Md.  
**TANKS.**  
 CONCRETE METAL K. D.  
 Tennessee Metal Culvert Co., Nashville, Tenn.  
**LEAD LINED.**  
 Hauser-Stander Tank Co., The, Cincinnati, Ohio.  
**IRON AND STEEL.**  
 American Bridge Co., New York, N. Y.  
 American Water Softener Co., Philadelphia, Pa.  
 Caldwell Co., Inc., W. E., Louisville, Ky.  
 Casey & Rogers, C., Chattanooga, Tenn.  
 Chattanooga Boiler & Tank Co., Chat'n'gs, Tenn.  
 Chicago Bridge & Iron Works, Chicago, Ill.  
 Des Moines Bridge & Iron Co., Des Moines, Iowa.  
 Hartley Boiler Works, Montgomery, Ala.  
 Hendricks Mfg. Co., Carbondale, Pa.  
 Lombard Iron Works, Anconia, Ga.  
 Lookout Boiler & Mfg. Co., Chattanooga, Tenn.  
 Memphis Steel Const. Co., of Pa., Pittsburgh, Pa.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
 Seafie & Sons Co., Wm. R., Pittsburgh, Pa.  
 Schofield Engine Works, Macon, Ga.  
 Southern Boiler & Tank Works, Memphis, Tenn.  
 Struthers-Wells Co., Warren, Pa.  
 Tennessee Metal Culvert Co., Nashville, Tenn.  
 Virginia Bridge & Iron Co., Roanoke, Va.  
 Walsh & Weldner Boiler Co., Chattanooga, Tenn.  
 West-house Traction Brake Co., Wilmerding, Pa.  
**PICKLING.**  
 Hauser-Stander Tank Co., The, Cincinnati, Ohio.  
**WOOD.**  
 Caldwell Co., Inc., W. E., Louisville, Ky.  
 Hayes & Son, G. M., Palatka, Fla.  
 Hauser-Stander Tank Co., The, Cincinnati, Ohio.  
 Pacific Tank & Pipe Co., San Francisco, Cal.  
**TAPES.** (Measuring.)  
 Infilin Rule Co., Saginaw, Mich.  
 Starratt Co., L. S., Athol, Mass.  
**TELEPHONES.** (Supplies, Equipment.)  
 Piedmont Electric Co., Asheville, N. C.  
 Western Electric Co., New York, N. Y.  
**TELEPHONE SERVICE.**  
 American Telephone & Telegraph Co.  
**THREADING AND TAPPING MACHINERY.**  
 Webster & Perks Tool Co., The, Springfield, Ohio.  
**TREASHERS.**  
 Cardwell Machine Co., Richmond, Va.  
**TIERING MACHINES.** (Portable.)  
 Economy Engineering Co., Chicago, Ill.  
**TILE.**  
**DRAIN.**  
 Northwestern Steel & Iron Wks., Eau Claire, Wis.  
 Oconee Brick & Tile Co., Milledgeville, Ga.  
**FLOOR, WALL, MANTEL, ETC.**  
 Amer. Enam. Brick & Tile Co., New York, N. Y.  
 Hood Brick Co., R. Mifflin, Atlanta, Ga.  
 National Mosaic & Tile Co., Inc., Mobile, Ala.  
**STRUCTURAL.**  
 Oconee Brick & Tile Co., Milledgeville, Ga.  
**TILE SLABS.**  
 Ludowick Celadon Co., Chicago, Ill.  
**TIMBERS.** (Crescanted.)  
 American Crossnote Works, New Orleans, La.  
 Republic Crossnoting Co., Indianapolis, Ind.  
**TIME RECORDERS.**  
 Eco Clock Co., Boston, Mass.  
 Newman Clock Co., New York, N. Y.  
**TIN AND TERNE PLATES.**  
 American Sheet & Tin Plate Co., Pittsburgh, Pa.  
 Liberty Steel Co., Warren, Ohio.  
 Trumbull Steel Co., Warren, Ohio.  
**TOBACCO MACHINERY.**  
 Buckeye Iron & Brass Works, Dayton, Ohio.  
 Cardwell Machine Co., Richmond, Va.  
 Ripley Foundry & Machine Co., Ripley, Ohio.  
**TOOLS.**  
**MACHINISTS.**  
 Western Tool & Mfg. Co., Springfield, Ohio.  
**MECHANICAL.**  
 Starratt Co., L. S., Athol, Mass.  
**PNEUMATIC.**  
 Chicago Pneumatic Tool Co., Chicago, Ill.  
 Independent Pneumatic Tool Co., Chicago, Ill.  
 Ingersoll-Rand Co., New York, N. Y.  
**TOOLHOLDERS.**  
 Western Tool & Mfg. Co., Springfield, Ohio.  
**TORCHES.**  
 Wall Mfg. Supply Co., P., Allegheny, Pa.  
**TOWERS.**  
**ELECTRIC TRANSMISSION.**  
 American Bridge Co., New York, N. Y.  
**STEEL AND WOOD.**  
 Caldwell Co., Inc., W. E., Louisville, Ky.  
 Chattanooga Boiler & Tank Co., Chat'n'gs, Tenn.  
 Chesapeake Iron Works, Baltimore, Md.  
 Des Moines Bridge & Iron Co., Des Moines, Ia.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
 Walsh & Weldner Boiler Co., Chattanooga, Tenn.  
**TRAMWAY.**  
**OVERHEAD.**  
 Spindel, J. G., Reading, Pa.  
 Yale & Towne Mfg. Co., New York, N. Y.

**XUM**



## TRAMWAY.

Wire Rope.  
American Steel & Wire Co., Chicago, Ill.  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Caldwell & Son Co., H. W., Chicago, Ill.  
Waterbury Co., New York, N. Y.

## TRANSFORMERS.

General Electric Co., Schenectady, N. Y.  
Westhouse Elec. & Mfg. Co., East Pittsburgh, Pa.

## TRANSMISSION BEARINGS AND HANGERS.

Hunt Roller Bearing Co., New York, N. Y.  
TRENCH MACHINERY.  
Ball Engine Co. (Erie Steam Shovel Co.) Erie, Pa.  
Buckeye Traction Ditcher Co., Findlay, Ohio.  
The Automatic Shovel Co., Lorain, Ohio.

## TRUCKS.

Dry Kiln.  
Moore Dry Kiln Co., L., Jacksonville, Fla.  
Motor. (Gasoline.)  
Garford Motor Truck Co., Lima, Ohio.  
General Motors Truck Co., Pontiac, Mich.  
International Motor Co., New York, N. Y.  
U. S. Motor Truck Co., Cincinnati, Ohio.  
Platform, Freight, Mill, Factory, Etc.  
Chase Foundry & Mfg. Co., Columbus, Ohio.  
Edwards Mfg. Co., Cincinnati, Ohio.

## TRUCK TIRES.

Goodyear Tire & Rubber Co., Akron, Ohio.

## TUBES. (Roller.)

Allegheny Steel Co., Pittsburgh, Pa.  
Cincinnati Iron & Steel Co., Cincinnati, Ohio.  
Midvale Steel & Ordnance Co., Philadelphia, Pa.  
National Tube Co., Pittsburgh, Pa.

## TUBE WELL STRAINERS.

Cook, A. D., Lawrenceburg, Ind.

## TUBING. (Rubber.)

Cincinnati Rubber & Mfg. Co., Cincinnati, Ohio.  
Goodyear Tire & Rubber Co., Akron, Ohio.

## METAL.

Griffith, James F., Philadelphia, Pa.  
La Belle Iron Works, Steubenville, Ohio.  
Ward's Sons Co., Edgar T., Philadelphia, Pa.

## TURBINES.

Hydraulic.  
Davis Foundry & Machine Works, Rome, Ga.  
Lefell & Co., James, Springfield, Ohio.  
South Co., S. Morgan, York, Pa.  
Trump Mfg. Co., The, Springfield, Ohio.  
Wellman Leaver-Morgan Co., The, Cleveland, O.

## STEAM.

Atlas-Chalmers Mfg. Co., Milwaukee, Wis.  
General Electric Co., Schenectady, N. Y.  
Westhouse Elec. & Mfg. Co., East Pittsburgh, Pa.

## TURN BUCKETS.

Broderick & Bascom Rope Co., St. Louis, Mo.  
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

## TURNABLES.

American Bridge Co., New York, N. Y.  
Virginia Bridge & Iron Co., Roanoke, Va.

## TWIN.

Columbia Rope Co., Auburn, N. Y.

## UNIONS.

Dart Mfg. Co., E. M., Providence, R. I.

## UPHOLSTERING MATERIAL. (For Autos &amp; Furniture.)

Du Pont Fabrikoid Co., Wilmington, Del.

## VACUUM PANS.

Birmingham Mch. & Fdry. Co., Birmingham, Ala.

## VALVES.

Bourbon Copper & Brass Wks. Co., Cincinnati, O.  
Cincinnati Rubber & Mfg. Co., Cincinnati, Ohio.  
Columbian Iron Works, Chattanooga, Tenn.  
Crane Co., Chicago, Ill.  
Frick Co., Waynesboro, Pa.  
Glamorgan Pipe & Fdry Co., Lynchburg, Va.  
Goodyear Tire & Rubber Co., Akron, Ohio.  
Lunkelheimer Co., The, Cincinnati, Ohio.  
Vogt Mch. Co., Inc., Henry, Louisville, Ky.  
Westhouse Traction Brake Co., Wilmerding, Pa.

## VALVES.

Acid Proof.  
Durlon Casting Co., Dayton, Ohio.  
Lunkelheimer Co., Cincinnati, Ohio.

## GAS REVERSING.

Morgan Construction Co., Worcester, Mass.

## VARNISH.

Arco Co., Cleveland, Ohio.

## VAULT DOORS.

National Safe Co., Cleveland, Ohio.

## VENEER CUTTING MACHINERY.

American-Blakeslee Mfg. Co., Birmingham, Ala.  
Titus, E. E., Petersburg, Va.

## VENTILATING APPARATUS. (Engineers' and Contractors.)

Buffalo Forge Co., Buffalo, N. Y.  
Carrier Engineering Corp., New York, N. Y.  
Clarge Fan Co., Kalamazoo, Mich.  
Skinner Bros. Mfg. Co., St. Louis, Mo.

## VENTILATORS. (Roof.)

Edwards Mfg. Co., Cincinnati, Ohio.  
Merchant & Evans Co., Philadelphia, Pa.

## VISES.

Hollands Manufacturing Co., Erie, Pa.  
Western Tool & Mfg. Co., Springfield, Ohio.

## WAGONS. (Dump.)

Western Wheeled Scraper Co., Aurora, Ill.

## WAGON LOADERS.

Bonney Supply Co., Inc., Rochester, N. Y.  
Hais Mfg. Co., Geo., New York, N. Y.  
Jeffrey Mfg. Co., Columbus, Ohio.  
Link Belt Co., Philadelphia, Pa.  
Portable Machinery Co., Inc., Passaic, N. J.

## WALL BOARD. (Walls, Ceilings, etc.)

Cornell Wood Products Co., Chicago, Ill.

## WALL PLUGS. (Galvanized.)

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

## WALL TIES.

Edwards Mfg. Co., Cincinnati, Ohio.  
Van Dorn Iron Works Co., The, Cleveland, Ohio.

## WALL TIES.

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

## WASHING MACHINERY.

ONE AND PHOSPHATE.  
Bailey-Lebby Co., Charleston, S. C.

## SAND AND GRAVEL.

Bonney Supply Co., Inc., Rochester, N. Y.

## SAND AND GRAVEL.

Davis Foundry & Machine Works, Rome, Ga.  
Link Belt Co., Philadelphia, Pa.

## WASHERS.

COPPER, IRON, BRASS, ALUMINUM.  
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

## WASHERS.

Stimpson Co., Edwin B., Brooklyn, N. Y.  
Topping Bros., New York, N. Y.

## WASHERS.

GRAPHITE AND BRONZE OIL-LESS.  
Bound Brook Oil-less Brg. Co., Bound Brook, N. J.

## WASHERS AND GASKETS. (Felt.)

Booth Felt Co., Inc., Brooklyn, N. Y.

## WATERPROOFING. (Canvas.)

Robeson-Preservo Products Co., Port Huron, Mich.

## WATERPROOFING. (For Brick, Concrete, Granite, etc.)

Arco Co., Cleveland, Ohio.  
Sonnenborn Sons, Inc., L., New York, N. Y.  
Toch Bros., New York, N. Y.

## WATER PURIFICATION.

Electric Ozone Sterilizer Co., Chicago, Ill.  
Scalf & Sons Co., Wm. B., Pittsburgh, Pa.

## WATER-SOFTENING APPARATUS. (Purifying.)

American Water Softener Co., Philadelphia, Pa.  
Boone Sales & Engineering Co., Mishawaka, Ind.  
International Filter Co., Chicago, Ill.

## WATER-SOFTENING APPARATUS. (Purifying.)

Pittsburgh Filter Mfg. Co., Pittsburgh, Pa.  
Richmond Water Softening Co., Richmond, Ind.  
Tucker & Laxton, Charlotte, N. C.

## WATER STERILIZATION.

Electric Ozone Sterilizer Co., Chicago, Ill.

## WATER-WORKS, SUPPLIES, APPLIANCES.

American Cast Iron Pipe Co., Birmingham, Ala.  
Bourbon Copper & Brass Wks. Co., Cincinnati, O.  
Cast Iron Pipe Publicity Bureau, New York, N. Y.

## WATER-WORKS, SUPPLIES, APPLIANCES.

Caldwell-Wilcox Co., Newburgh, N. Y.  
Columbian Iron Works, Chattanooga, Tenn.  
Glamorgan Pipe & Fdry Co., Lynchburg, Va.

## WATER-WORKS, SUPPLIES, APPLIANCES.

Layne & Bowler Co., Memphis, Tenn.  
Michigan Pipe Co., Bay City, Mich.  
Standard Spiral Pipe Works, Chicago, Ill.

## WATER-WORKS, SUPPLIES, APPLIANCES.

T. S. Cast Iron Pipe & Fdry Co., Burlington, N. J.  
Wood & Co., R. D., Philadelphia, Pa.

## WATCHMAN'S PORTABLE CLOCKS.

Eco Clock Co., Boston, Mass.

## WATCHMAN'S PORTABLE CLOCKS.

Newman Clock Co., New York, N. Y.

## WELDING APPARATUS. (Electric.)

Lincoln Electric Co., Cleveland, Ohio.

## WELDING APPARATUS. (Oxy-Acetylene Process.)

Imperial Brass Mfg. Co., Chicago, Ill.

## WELDING APPARATUS. (Oxy-Acetylene.)

Imperial Brass Mfg. Co., Chicago, Ill.

## WELL CONTRACTORS. (Oil, Artesian, etc.)

Cook, A. D., Lawrenceburg, Ind.  
Gray Artesian Well Co., Pensacola, Fla.  
Hughes Specialty Well Drill Co., Charleston, S. C.

## WELL CONTRACTORS. (Oil, Artesian, etc.)

Layne & Bowler Co., Memphis, Tenn.

## WELL TOOLS AND SUPPLIES.

Cook, A. D., Lawrenceburg, Ind.  
Johnson Inc., Edward E., St. Paul, Minn.  
Williams Bros., Ithaca, N. Y.

## WHEELS AND AXLES.

Electric Wheel Co., Quincy, Ill.  
Oliver Mfg. Co., W. J., Knoxville, Tenn.

## WINDOW FRAMES AND SASH. (Fireproof.)

Detroit Steel Products Co., Detroit, Mich.  
Linton Sons Co., David, Philadelphia, Pa.

## WINDOW FRAMES AND SASH. (Fireproof.)

Trucon Steel Co., Youngstown, Ohio.

## WINDOW GUARDS.

IRON AND STEEL.  
Dexter Metal Mfg. Co., Camden, N. J.

## WINDOW SASH. (Steel.)

Detroit Steel Products Co., Detroit, Mich.

## WIRE.

BARBED WIRE, ETC.  
American Steel & Wire Co., Chicago, Ill.  
Atlantic Steel Co., Atlanta, Ga.

## Gulf States Steel Co., Birmingham, Ala.

Page Steel & Wire Co., Adrian, Mich.  
Youngstown Sheet & Tube Co., Youngstown, Ohio.

## COPPER CLAD STEEL.

Page Steel & Wire Co., New York, N. Y.

## ELECTRICAL.

Page Steel & Wire Co., New York, N. Y.

## FENCE.

Cyclone Fence Co., Waukegan, Ill.

## FLAT AND ROOF.

Roebeling's Sons Co., John A., Trenton, N. J.

## GALVANIZED AND ANNEALED.

Aborn Steel Co., New York, N. Y.  
American Steel & Wire Co., Chicago, Ill.  
Gulf States Steel Co., Birmingham, Ala.

## ISOLATED.

Electric Cable Co., New York, N. Y.

## TELEPHONE, TELEGRAPH.

American Steel & Wire Co., Chicago, Ill.

## WELDING.

Page Steel & Wire Co., New York, N. Y.

## WIRE CLOTH. (Iron, Steel, Brass, etc.)

Caldwell & Son Co., H. W., Chicago, Ill.  
Ludlow-Saylor Wire Co., St. Louis, Mo.  
Meyers Mfg. Co., The, Fred J., Hamilton, Ohio.

## WIRE CLOTH. (Iron, Steel, Brass, etc.)

Wright Wire Cloth Co., Trenton, N. J.

## WIRE COILING MACHINERY.

Sleeper & Hartley, Inc., Worcester, Mass.

## WIRE GOODS.

Bolles Iron & Wire Works, J. P., Detroit, Mich.  
Cyclone Fence Co., Waukegan, Ill.

## WIRE GOODS.

Dow Wire & Iron Works, Inc., Louisville, Ky.  
Dufur, Baggett & Co., Baltimore, Md.

## WIRE GOODS.

Gulf States Steel Co., Birmingham, Ala.  
Meyer Mfg. Co., The, Fred J., Hamilton, Ohio.  
Midvale Steel & Ordnance Co., Philadelphia, Pa.

## WIRE GOODS.

New Jersey Wire Cloth Co., Trenton, N. J.  
Stimpson Co., Edwin B., New York, N. Y.

## WIRE NAIL MACHINERY.

Sleeper & Hartley, Inc., Worcester, Mass.

## WIRE NETTING.

Ludlow-Saylor Wire Co., St. Louis, Mo.

## WIRE NETTING.

New Jersey Wire Cloth Co., Trenton, N. J.

## WIRE RODS.

Gulf States Steel Co., Birmingham, Ala.

## WIRE ROPE CLIPS.

American Steel & Wire Co., Chicago, Ill.

## WIRE STRAIGHTENING AND CUTTING MACHINERY.

Sleeper & Hartley, Inc., Worcester, Mass.

## WOOD DISTILLATION EQUIPMENT.

Struthers-Wells Co., Warren, Pa.

## WOOD PIPE. (For Water, etc.)

Michigan Pipe Co., Bay City, Mich.  
Standard Wood Pipe Co., Williamsport, Pa.

## WOOD PIPE. (For Water, etc.)

Wyckoff & Son Co., A., Elmira, N. Y.

## WOOD. (Preservative.)

Barrett & Co., New York, N. Y.

## WOOD. (Preservative.)

Du Pont Chemical Works, New York, N. Y.

## WOODWORKING MACHINERY.

Kline, Lewis T., Alpena, Mich.

## WRENCH MANUFACTURERS.

Lakeside Forge Co., Erie, Pa.

## YARN. (Barbed Steel.)

Columbian Rope Co., Auburn, N. Y.

## ZINC.

New Jersey Zinc Co., New York, N. Y.

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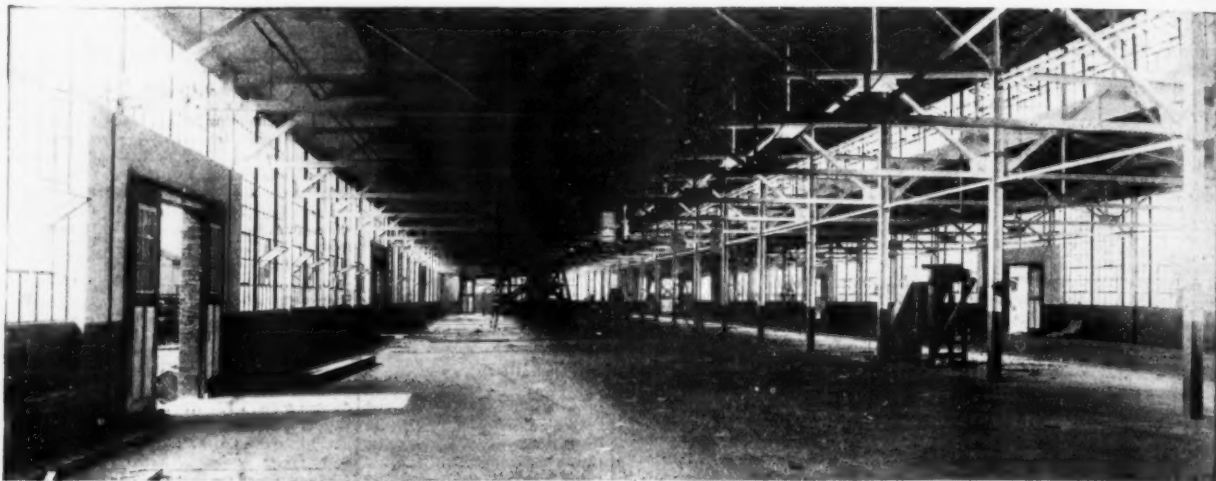
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Adams Storage Battery Co.	1	Hartford Steam Boiler Insurance & Inspection Co.	3	Lewis Co., Ralph R.	98	National Products Co.	100	Saco-Lowell Shops	118	Tri-State Pipe Co.	90
Adams Storage Battery Co.	1	Hartley Boiler Works	10	Liberty Steel Co.	35	National Safe Co.	34	Saddler & Son, Samuel F.	42	Trump Mfg. Co.	114
Adams Storage Battery Co.	1	Hausser-Stander Tank Co.	10	Lidge, Martin J.	40	National Steel Rail Co.	101	St. Louis Screw Co.	31	Truscon Steel Co.	130
Adams Storage Battery Co.	1	Hawkins-Hamilton Co.	92	Lidgerwood Mfg. Co.	106	National Transit Pump & Machine Co.	114	St. Marys Oil Engine Co.	63	Tucker & Laxton	41
Adams Storage Battery Co.	1	Hayward Company	138	Light Railway Equipment Co.	102	National Tube Co.	116	Sandusky Fdry. & Mch. Wks.	10	Turner-Halsey Co.	13
Adams Storage Battery Co.	1	Hedrick & Hedrick	40	Lincoln Electric Co.	1	Nelson, Wm. P., Jr.	42	Santee River Cypress Lum. Co.	97		
Adams Storage Battery Co.	1	Hendrick Mfg. Co.	113	Linde Air Products Co.	21	New Bern Iron Wks. & Sup. Co.	116	Sauerman Bros.	1	Union Drawn Steel Co.	82
Adams Storage Battery Co.	1	Hercules Powder Co.	2	Link Belt Co.	42	New Haven Sand Blast Co.	30	Savannah Eng. & Const. Co.	40	Union Iron Products Co.	1
Adams Storage Battery Co.	1	Herfurth Engine Co.	92, 98	Little, Inc. Arthur D.	89	New Jersey Wire Cloth Co.	34	Savannah Iron & Metal Co.	103	Union Iron Works	10
Adams Storage Battery Co.	1	Herman, Albert	90, 92	Lock Box 41	103	New Jersey Zinc Co.	1	Scafe & Sons Co., Wm. B.	33	Union Mining Co.	12
Adams Storage Battery Co.	1	Hersey Mfg. Co.	112	Lockett & Co., A. M.	103	Newman Clock Co.	1	Schadewald Mills	33	Union Traction Co. of Indiana	8
Adams Storage Battery Co.	1	Highland Pines Inn.	81	Lodge & Shipley Mch. Tool Co.	97	Newman Mfg. Co.	1	Schieren Co., Chas. A. 17, 70, 71, 72	6	Union Trust Co.	10
Adams Storage Battery Co.	1	Hill-Brunner Fdry. Supply Co.	1	Lombard Iron Works	10	Niagara Falls Met. Stamp. Wks.	34	Schofield Iron Works	19	United American Iron & Steel Co.	100
Adams Storage Battery Co.	1	Hires Turner Glass Co.	34	Longman & Martine	46	Nicholson File Co.	1	Scott & Williams, Inc.	41	United Machine Works	1
Adams Storage Battery Co.	1	Hitter's Sons Co., Henry A.	39, 100	Lookout Boiler & Mfg. Co.	10	Niles-Bement-Pond Co.	19	Seely-Johnson & Co.	94	Universal Road Mch. Co.	1
Adams Storage Battery Co.	1	Hodgeson Machinery Co.	92	Louisville Drying Mch. Co.	89	Northrup & Sons, C. E.	89	Sellers & Co., Inc., Wm.	12	U. S. Cast Iron Pipe & Foundry Co.	1
Adams Storage Battery Co.	1	Hoffman, J. Leon	40	Louisville Rendering Co.	89	Norton Machinery Co.	93	Seyfert's Sons, Inc., L. F.	92, 94	U. S. Fidelity & Guaranty Co.	100
Adams Storage Battery Co.	1	Hoffman & Co., R. C. Inc.	31	Louisville Fire Brick Works	89	Northwestern Expanded Metal Works	1	Shannon, A. L.	94	U. S. Motor Truck Co.	1
Adams Storage Battery Co.	1	Hoffmann-Sprout Co.	100	Lowell Crayon Co.	1	Northwestern Steel & Iron Works	1	Shearer, C. E.	1	U. S. Rail & Equipment Co.	101
Adams Storage Battery Co.	1	Holding Engine Sales Co.	1	Lucy Mfg. Corp.	1	O'Brien Machinery Co.	95	Shepard Electric Crane & Hoist Co.	1		
Adams Storage Battery Co.	1	Holding Machinery Co.	100	Ludlow-Saylor Wire Co.	34	Oconee Brick & Tile Co.	36	Sherwood, E. C.	98	Valk & Murdock Co.	10
Adams Storage Battery Co.	1	Holden Co., Chas. F.	80	Ludovick-Celadon Co.	36	Ohio Malleable Iron Co.	1	Shorewood Packing Co.	101	Valley Iron Works	43
Adams Storage Battery Co.	1	Hollands Mfg. Co.	18	Lufkin Rule Co.	18	Ohio Pipe Co.	91	Sizer Forge Co.	119	Vanadium Alloys Steel Co.	1
Adams Storage Battery Co.	1	Hood Brick Co., B. Millin	36	Lumber Minerals Co.	1	Oiler Mfg. Co., Wm. J.	102	Skinner Bros. Mfg. Co.	1	Vance Co., Mitchell	44
Adams Storage Battery Co.	1	Hood Brothers & Weeks	1	Lunkenheimer Co.	8	Otis & Holliday	119	Slayton & Co., W. L.	81	Van Dorn Iron Works Co.	1
Adams Storage Battery Co.	1	Houston Railway Car Co.	101	Lupton's Sons Co., David	1	Ottelheimer Bros.	1	Sleeper & Hartley, Inc.	1	Vendor Slate Co.	37
Adams Storage Battery Co.	1	Houston Stanwood & Gamble Co.	1	Luten, Daniel B.	40	Owen Bucket Co.	1	Small Quarries Co., A. T.	110	Viller Mfg. Co.	1
Adams Storage Battery Co.	1	Howland, F. L.	1			Owensboro Sewer Pipe Co.	36	Smith Co., S. Morgan	114	Vincennes Bridge Co.	33
Adams Storage Battery Co.	1	Hughes Specialty Well Drilling Co.	1	McCalla Co., Harold	1			Smith-Courtney Co.	12	Virginia Bridge & Iron Co.	33
Adams Storage Battery Co.	1	Hunt Co., C. W.	1	McCoy Iron Works	97			Smythe Co., S. R.	41	Virginia-Maryland Coal Co.	89
Adams Storage Battery Co.	1	Huntington Materials Co.	101	McCrory Co., J. B.	41, 97			Smith, Leonard F.	100	Vitrified Wheel Co.	1
Adams Storage Battery Co.	1	Hunter Bros. Saw Mfg. Co.	1	McDermott, B. J.	99			Snead Architectural Iron Wks.	32	Vogt Bros. Mfg. Co.	1
Adams Storage Battery Co.	1	Hyatt Roller Bearing Co.	1	McKee & Co., Arthur G.	41			Southern Steam Feed Works	119	Vogt Machine Co., Henry	13, 14
Adams Storage Battery Co.	1	Hyatt & Co.	93	McKenna Brass & Mfg. Co.	1			Southern Boiler & Tank Wks.	10		
Adams Storage Battery Co.	1	Hyndman Roofing Co.	36	McKinney Const. Co., John T.	41			Southern Croasting Co., Ltd.	97, 113		
Adams Storage Battery Co.	1			McLanahan-Stone Mch. Co.	112			Southern Foundry Co.	103		
Adams Storage Battery Co.	1			McLaughlin & Co., A. A.	97			Southern Furnace Co.	105		
Adams Storage Battery Co.	1			Machinery Exchange Co.	100			Southern Shops	103		
Adams Storage Battery Co.	1			Machinery & Supply Co.	92, 94			Southern States Port. Cem. Co.	24		
Adams Storage Battery Co.	1			Macomber & Whyte Rope Co.	46			Southern Steel Preserving Co.	113		
Adams Storage Battery Co.	1			Macon Fuel & Supply Co.	114			South Side Fdry. & Mch. Wks.	1		
Adams Storage Battery Co.	1			Magnesia Assn. of America	1			Speidel, J. G.	23		
Adams Storage Battery Co.	1			Main Belting Co.	1			Spitzer & Co., Sidney	80		
Adams Storage Battery Co.	1			Main, Chas.	40			Spray Engineering Co.	1		
Adams Storage Battery Co.	1			Mal-Gra Castings Co.	46			Spring, Leroy	98		
Adams Storage Battery Co.	1			Mallory Mchry. Corp.	96			Standard Brick Co.	36		
Adams Storage Battery Co.	1			Maries Company	98			Standard Oil Co. of Louisiana	111		
Adams Storage Battery Co.	1			Manhattan Perf. Metal Co.	89			Standard Portland Cement Co.	24		
Adams Storage Battery Co.	1			Maple, Moore & Lockwood	89			Standard Pressed Steel Co.	20		
Adams Storage Battery Co.	1			Mapp, R. A.	94			Standard Scale & Supply Co.	119		
Adams Storage Battery Co.	1			Marine Metal & Supply Co.	91			Standard Spiral Pipe Wks.	1		
Adams Storage Battery Co.	1			Maryland Trust Co.	80			Standard Wood Pipe Co.	116		
Adams Storage Battery Co.	1			May & Turner Co.	92			Starr Co., B. F.	17		
Adams Storage Battery Co.	1			Mathews Gravity Carrier Co.	1			Starratt Co., L. S.	17		
Adams Storage Battery Co.	1			Mayer, F.	97, 102			Steele & Sons, J. C.	103		
Adams Storage Battery Co.	1			Meade & Co., Richard K.	102			Sterling Motor Truck Co.	1		
Adams Storage Battery Co.	1			Mecklenburg Iron Works	111			Stevens Bros. & Co.	12		
Adams Storage Battery Co.	1			Medart Mfg. Co., Fred	18			Stewart (Electric), S. J.	94		
Adams Storage Battery Co.	1			Medart Patent Pulley Co.	18			Stewart, Paul & Co.	93		
Adams Storage Battery Co.	1			Meighan, John F.	98			Stimpson Co., Edwin B.	5		
Adams Storage Battery Co.	1			Memphis Steel Constr. Co. of Pa.	16			Stone & Webster	41		
Adams Storage Battery Co.	1			Mercantile Trust & Deposit Co.	81			Straley, Daniel B.	101		
Adams Storage Battery Co.	1			Mercantile-Mechanics First National Bank	80			Stranburg Stn. Flouring Mills	92		
Adams Storage Battery Co.	1			Merkle Machinery Co.	91, 92			Stratton & Bragg Co.	103		
Adams Storage Battery Co.	1			Metaline Company	18			Strayer's Business College	81		
Adams Storage Battery Co.	1			Mezger, Louis H.	101			Strickland Machine Co.	103		
Adams Storage Battery Co.	1			Meyers Mfg. Co., Fred J.	34			Stroudsburg Engine Wks.	106		
Adams Storage Battery Co.	1			Michigan Pipe Co.	116			Struthers-Wells Co.	1		
Adams Storage Battery Co.	1			Midvale Machine Works	1			Sullivan Machinery Co.	1		
Adams Storage Battery Co.	1			Midvale Steel & Ordnance Co.	29			Sun Power Equip. Co.	93		
Adams Storage Battery Co.	1			Mietz Corp., August	40			Superior Thread & Yarn Co.	89		
Adams Storage Battery Co.	1			Millburn, Heister & Co.	40			Swan & Finch Co.	13		
Adams Storage Battery Co.	1			Miller-Crippen Co.	1			Sweet's Steel Co.	102		
Adams Storage Battery Co.	1			Miller-Owen Electric Co.	94			Swift & Co.	1		
Adams Storage Battery Co.	1			Milton Mfg. Co.	28						
Adams Storage Battery Co.	1			Military Railways	88						
Adams Storage Battery Co.	1			Mineral Corp. of America Inc.	42						
Adams Storage Battery Co.	1			Missouri Malleable Iron Co.	32						
Adams Storage Battery Co.	1			Model Land Co.	120						
Adams Storage Battery Co.	1			Moffatt Machinery Mfg. Co.	23						
Adams Storage Battery Co.	1			Monarch Elec. Motor Co.	88						
Adams Storage Battery Co.	1			Monaghan Electric Co.	1						
Adams Storage Battery Co.	1			Moore & Co., W. E.	40						
Adams Storage Battery Co.	1			Moore Bros.	100						
Adams Storage Battery Co.	1			Moore Dry Kiln Co.	1						
Adams Storage Battery Co.	1			Morgan Construction Co.	38						
Adams Storage Battery Co.	1			Morris Machine Works	145						
Adams Storage Battery Co.	1			Morrison, Hackley	93						
Adams Storage Battery Co.	1			Morrison & Risman	101						
Adams Storage Battery Co.	1			Morse Chain Co.	1						
Adams Storage Battery Co.	1			Morse, Stanley F.	1						
Adams Storage Battery Co.	1			Motter's Sons, Geo. F.	94						
Adams Storage Battery Co.	1			Moyers-Bennet Co.	92, 93						
Adams Storage Battery Co.	1			Mundt & Sons, Chas.	113						
Adams Storage Battery Co.	1			Murphy's Hotel	1						
Adams Storage Battery Co.	1			Murray Company	118						
Adams Storage Battery Co.	1			Murray Iron Works Co.	1						
Adams Storage Battery Co.	1			Mutual Fdry. & Mch. Co.	1						
Adams Storage Battery Co.	1			Myers & Bro., F. E.	114						
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Advs. marked \* appear every other week.  
Advs. marked † appear in first issue of the month.  
Advs. marked ‡ not in this issue.

**Classified Opportunities** { See Pages  
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Proposal Advertisements	See Pages
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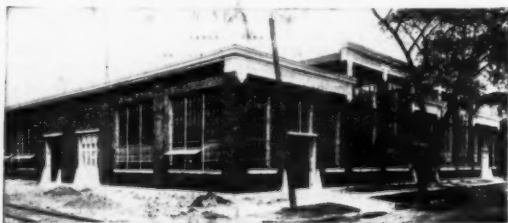




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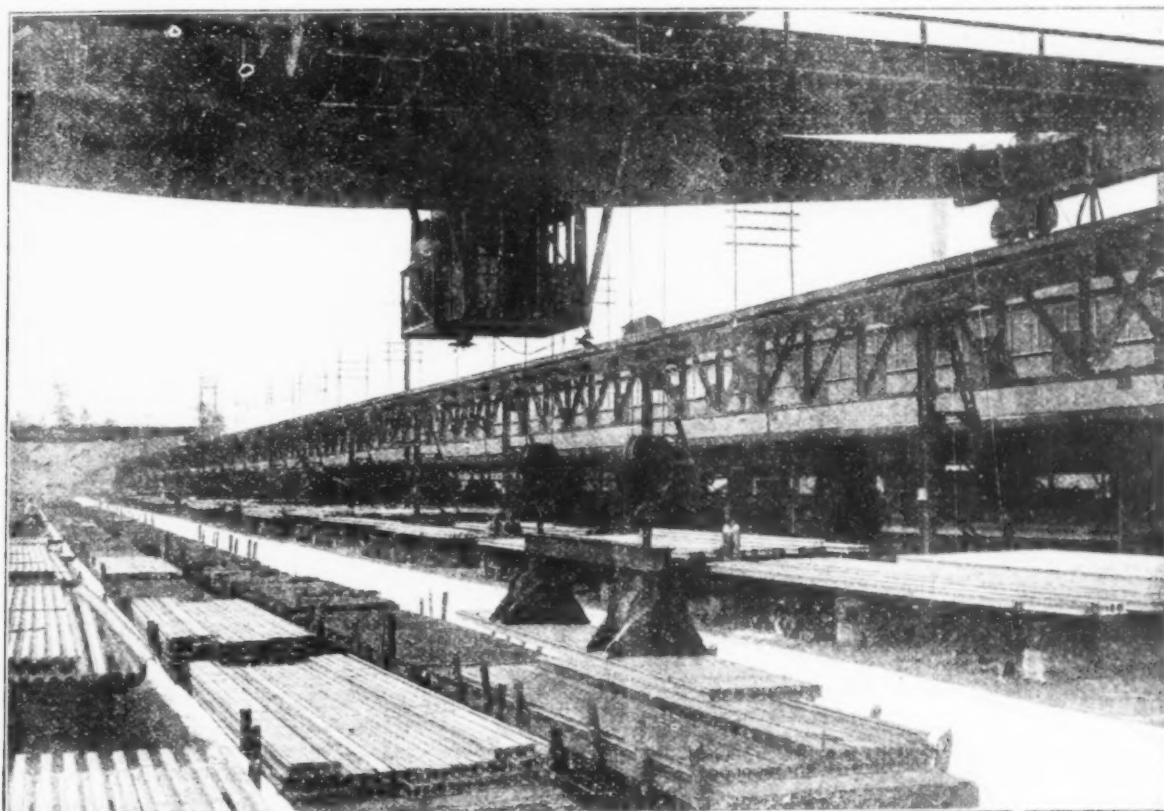
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Rail Loading Docks at Ensley Mill. Showing Modern Methods of Rail Handling.

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AMERICA'S might is behind the gallant men who are striking with pent-up fury, dealing trip-hammer blows along the entire extent of the fighting front, — our Allies.

The fires of industry glow white-hot where the men of toil are forging the guns to deal out defiance to Autocracy. Every mighty force is responding to the needs of marching millions.

We are under way full tilt at last. Hear the roar and din of Yankee might. See the sweeping onrush of Nations at battle speed.

As America must aid our gallant Allies in this great world crisis and strike here and there with telling effect, so motor trucks must be the connecting link between the railroads, and the ships which bridge the bosom of the Atlantic *their* Allies!

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Here and there they dart over the highways, taking up the slack, relieving deadening congestion, bringing up the essentials of war from districts which might otherwise be isolated but for the work of relief being done by motor trucks. Motor trucks are carrying their share of the load, hauling millions of tons of vital materials every day.

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Our specialists in transportation matters, backed by the Garford full and complete line of motor trucks of varying capacity and power, will be glad to co-operate with you in your hauling problems.

There is no problem too large or too small to have our fullest attention and honest opinion.

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